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ESTAB. 1859

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. 2118 AUGUST 28, 1920. VOL. XCIII.

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The Best Sugarless Sweetener.

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In two sizes, 2/9 and 5/6.
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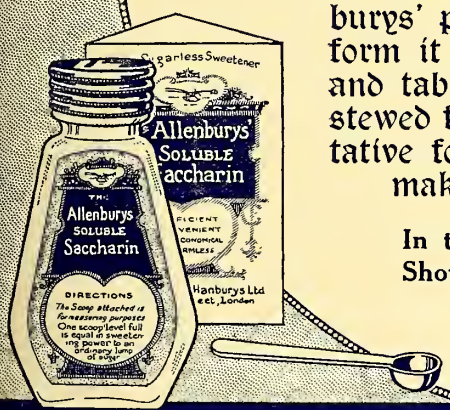

A 2/9d Bottle equals 50 oz of Sugar.

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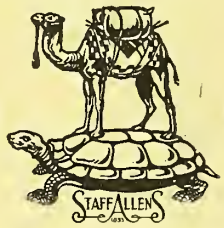
TRADE 

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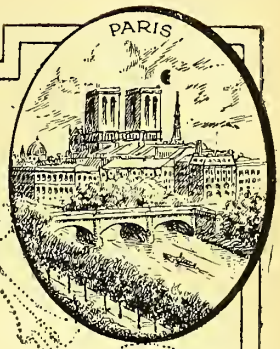
LONDON, E.C.4.



We are at the moment exceptionally well placed for

ACETANILIDE
BROMIDES
FORMALDEHYDE
PHENACETIN
SULPHONAL

and invite your inquiries for prompt or forward delivery.

Wholesale and Export Only.

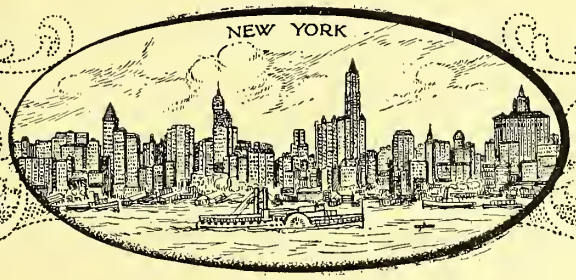
R. W. GREEFF & CO.

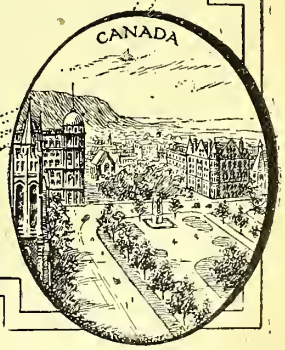
THAMES HOUSE, QUEEN ST. PLACE
LONDON, E.C. 4.

MANCHESTER BRANCH:
Lloyds Bank Buildings,
KING STREET.

Telegrams:
"Greeff, Cannon, London."
Telephone:
City 8600 (5 lines).

NEW YORK AGENTS:
R. W. GREEFF & CO., Inc.
78 FRONT STREET.





HARRO-SUL-WA

Harrogate Sulphur Water

THE ONLY TOILET REQUISITES IN THE WORLD

made with the

HARROGATE NATURAL SULPHUR WATER

freshly drawn from our own private springs of which we have the monopoly.

TRADE TERMS: 50% off Retail Prices and 5% cash or 2½% one month.

CARRIAGE PAID over £2. Small lots by return of post. Goods exchangeable if required.

INTRODUCTORY OFFER.—Until Sept. 1st an extra 15% provided there is an agreement to give our goods a good window display.

Harro-sul-wa goods are made in Harrogate, and are of Harrogate quality.

Massage Creams, Day & Night Creams, Complexion Wax, Skin Lotions, Dental Creams, Shaving Creams, Soaps, etc.

THE HARRO-SUL-WA TOILETS

30 PARLIAMENT ST., HARROGATE

NILDE of PARIS.

Nilde Powder	1/-	8/-	doz.
ditto	3/6	28/-	,,
Embroidered or Leather	5/-	40/-	,,
Rouge Nilde	1/6	12/-	,,
Embroidered or Leather	5/6	44/-	,,

DORIN of PARIS.

	Doz.
124 Dorin de Poche ...	8/-
1bis Rouge de Théâtre	6/-
4 Rouge Fin de Théâtre	7/-
63bis Eyebrow Pencils	3/4
451 Rouge Brunette ...	10/-
418 Dorina Powder ...	8/-
418ter ,, ,, ...	16/-

£5 lots 5% £10 lots 10%

POMEROY of LONDON.

Day Cream	2/6	24/5	doz.
Skin Food	1/9	15/5	,,
,, ,, ...	4/-	35/2	,,

LA REINE des CREMES.

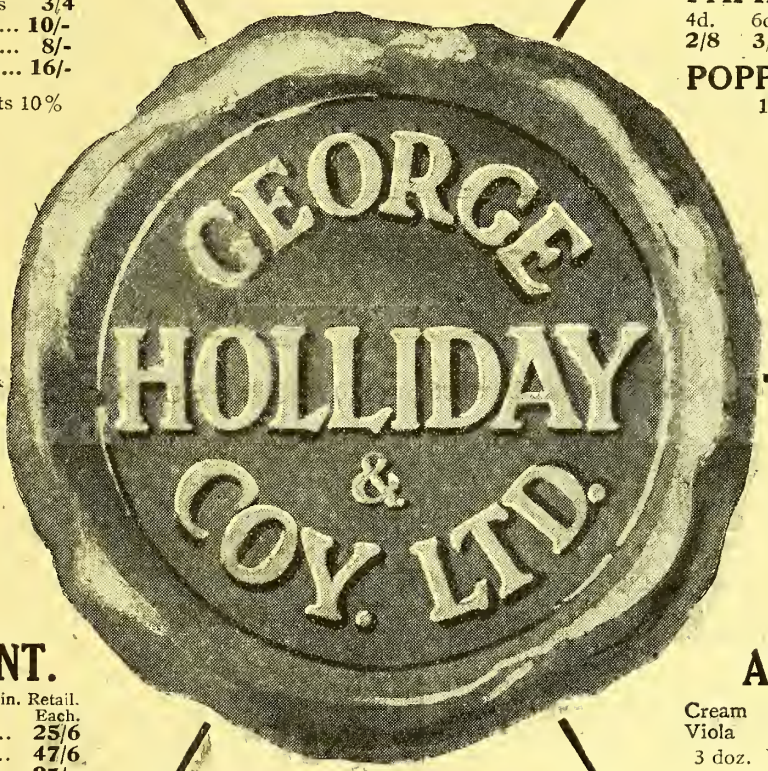
Small	19/6	doz.
Medium ...	28/-	,,
Large	60/-	,,

PAPIER POUDRE.

4d.	6d.	8d.	1/3
2/8	3/9	5/-	10/- doz.

POPPŒA ROUGE.

1/- 8/- doz.



HOUBIGANT.

	Min. Retail. Each.
536 Idéal	25/6
539 ,, ...	47/6
540 ,, ...	95/-
710 Quelques Fleurs...	29/6
750 ,, Violettes	25/6
569 Coeur de Jeannette	18/-
584 Mes Délices ...	25/6
661 Premier Mai ...	23/-

Subject to 33% and 5%.

ANZORA.

Cream ...	1/6	12/-	doz.
Viola ...	2/6	20/-	,,

3 doz.	1/6 or equiv. assd.	2½%
6 ,,		5%
12 ,,		10%

KRASKA.

1/2	9/6	doz.
1/8	12/6	,,

DIADEM Preparations.

			Doz.
Decoltene Depilatory ...	3/9	size ...	30/-
Dinkie Deodorant	2/6	,, ...	20/-
Diadem Face Powder ...	2/6	,, ...	20/-
,, Complexion Wax	2/6	,, ...	20/-
,, Crême Rouge ...	2/6	,, ...	20/-
,, Vanishing Cream	3/9	,, ...	30/-
,, Talcum Powder ...	1/3	,, ...	10/-
,, Eau de Cologne, 1 oz.	2/3	,, ...	18/-
,, ,, ,, 2 oz.	4/3	,, ...	34/-
,, ,, ,, 4 oz.	7/9	,, ...	62/-
,, Parfum Sec ...	2/-	,, ...	16/-

Carriage Paid on £5 Orders. Cases Free or at Cost and Half Allowed if Retained.

289-325 City Road, MANCHESTER

Tubed Goodwill!!!

MACLEANS LTD. supply Superb Lanoline, Tooth Pastes, Cold Cream, Official Ointments, Catarrh Jelly, Pile Ointment, etc., in tubes with your name and address a part of the colour enamel decoration.

IN the present "parting of the ways" (as Xrayser II. puts it), there are two ways which the pharmacist may decide upon.

ONE IS to cultivate business for other people's goods, bearing other people's names, at a remuneration arranged by other people. This may be shortly described as the "goodwill-for-other-people" way.

THE ALTERNATIVE is to cultivate business for your own goods, bearing your own name, at a rate of remuneration decided by yourself. This may be termed the "goodwill-for-myself" way.

MACLEANS LTD. can give real help to all who decide upon the latter way for their tubed products.

Macleans Limited

6 Spring Street,
LONDON, W. 2.

THE AMERICAN COMMERCE CO. LTD
19, St. Bride Street, London, E.C.4

IMMEDIATE SHIPMENT

Henna Leaves

NEW CROP

Purchased through our Egyptian Office

95/20

Telegrams & Cables: "Amcomco London" Phone: Holborn 1640, 1641.

VERRERIES de SCAILMONT
MANAGE (Belgium).

GLASSWARE

PLAIN, CUT,
ENGRAVED, MOULDED, &c.

SPECIALITY:

MEDICAL and PERFUME BOTTLES

TABLE SERVICES
BEER BOTTLES

Maw's Page

August 28, 1920. No. 463.

New Business for Chemists only

THERE are moments in the history of every industry when a change of attitude of the buying public, a new cult or a new trend of fashion opens up tremendous avenues of opportunity for new business.

A moment of Golden Opportunity has arrived for the Pharmacist. The cult for manicure, which is undoubtedly taking a firm hold of the British Public, offers untold possibilities for the pharmacist who will devote the necessary enterprise to this branch of his business.

The House of Maw has always assisted the pharmacist to make the most of new business opportunities by putting into his hands to-day the goods the public will demand to-morrow.

To-day the House of Maw offers the pharmacist a complete line of goods which enable him to take full advantage of this new cult for manicure—the wonderful "Parex" Manicure Methods Series—a range embracing every item of manicure equipment, presented with the utmost taste, selling at the right price, and securing a handsome profit for the retailer on every transaction.

The outstanding feature of "Parex" Manicure Methods is that they are supplied only to bona-fide chemists. The public cannot buy them from the hairdresser or fancy goods dealer. "Parex" quality ensures repeat orders, and the policy of the House of Maw makes it certain that these repeat orders shall come to you.

Therefore—when you decide to cultivate Manicure Business, reduce your competitors by concentrating on "Parex" Manicure Methods.

Our Representative will show you the "Parex" Manicure Methods Series, or we shall be pleased to send you full particulars.

Telephone: "City 7" (Private Branch Exchange).

S. Maw, Son & Sons, Ltd.,
7/12 Aldersgate St.,
London, E.C.1.

Telegrams: "Eleven Cent, London."

"CYNTA" (Regd.) *Specialities for Ladies & Children*

THERE'S a steadily increasing demand for these goods, and if you do not stock them you are missing your share of very profitable business.

MONEY cannot buy better value, and besides the high standard of quality of the goods themselves, the style of make-up is attractive and smart.

IN days past the need of these articles was not appreciated, but now when such attention is being given to sanitary and hygienic conditions, the opportunity should not be lost of demonstrating the comfort and satisfaction to be gained by their regular use.

THIS is a short list of the leading Specialities, and they are being added to continually.

HYGIENIC TOWELINES.

Absorbent Accouchement Sheets, W.P. Bed Sheets, Obstetrical Binders, Breast Pads and Shields, Protective Knickers, Aprons and Shields, Nursing Aprons, Baby Bibs and Binders, Napkinettes, Toilet Powder, Toilet Soap, &c.

Order through your Wholesaler, or direct from

CYNTA MANUFACTURING COMPANY

(Proprietors : ROBERT BAILEY & SON, Ltd.)

St. Thomas' Place, STOCKPORT.

151-157 Goswell Road, LONDON, E.C. 1.

TRADE MARK

PERFECTUM SERIES

Telegrams:
"Aybelim, Finsquare, London."
Cables:
Code, A B C, 5th Edition.

Telephone:
CLERKENWELL 1347
" 1348
" 1349
Pte. Exchange.

SURGICAL DRESSINGS AND CHEMISTS' SUNDRIES

THE

"PERFECTUM" Hot Water Bottle

Write for sample and quotation.

Supplied with own name and trade mark.

Good Reputation. Reliable Quality.
Superior Make, Finish and Sterling Value.

ARTHUR BERTON LTD.

REGISTERED OFFICE, SHOWROOMS AND WAREHOUSE:

15 & 17 Worship Street, LONDON, E.C. 2

ALSO AT

MANCHESTER,
46a MARKET STREET.

GLASGOW,
11 MILLER STREET.

To Please is to Create

NORA

Complexion Powder

Poudre de Riz

Produced to supply a perfect high-grade Face Powder at a reasonable price, showing an excellent selling margin. **9/-** doz.

Are you Selling our Brillantine Exotique ?

Introductory Bonus—Special.—With each order of 3 doz., a bonus of ½-doz. as a Sales Promoter.

One of the Areco Series

Nora is British made in a British Factory under the management of a French Perfumery expert.

TINTS
Sunburn
White
Rachel
Naturelle
Rose

Adherent and permanently fragrant.

Areco Ltd

London and Paris

11 Southampton Row
London, W.C. 1

Rue Taitbout
Paris, IXe

We should like to put an interesting proposition before you—May we call with samples?

AYRTON'S WEEKLY PAGE 15

Order now your winter supply of Pinettes !

Each Pinette contains the correct dose of Essence of Pine, they are very comforting for the Chest, Throat and Lungs.

Price in bulk:

1	7	14	28	56	112 lbs.
2/9	**2/8**	**2/7**	**2/6**	**2/5**	**2/4** per lb

In tins containing approximately:

1½ ozs.	per dozen,	**5/6**	per gross, **63/-**
3 ,, ...	,,	**7/9**	,, **90/-**

CARTONS AND ENVELOPES FREE.

Whilst present stocks last we will supply these with all orders for Pinettes as follows:

112 lbs.	500 Cartons and Envelopes	
56 ,,	250 ,,	,,
28 ,,	150 ,,	,,
14 ,,	100 ,,	,,
7 ,,	50 Cartons only	

We have a very effective Showcard in three colours which can be supplied with all orders.

Ayrton's Mints

are just a little better than the rest.

Made with English Oil of Peppermint.

	Per doz.	Per gross
In tins, small size	**4/-**	**45/-**
,, large ,,	**7/-**	**78/-**
In bulk	per lb.	**3/6**

SHOWCARDS WITH ALL ORDERS

AYRTON, SAUNDERS & CO. LTD

Manufacturing Chemists **LIVERPOOL**

Enolin

TOOTH PASTE "Strong" or "Mild"

THE SUPER PASTE

"Enolin" is also supplied in Powder Form.

Selling Agents for Provinces, Ireland and Export—
Messrs. PATTINSON & MACKIE, LTD.
Albion House, 59 New Oxford Street,
London, W.C. 1.

Sole Manufacturers and Proprietors—
A. & E. CARRERAS, LTD., Perfumers,
207 King Street, Hammersmith,
London, W. 6.

BIDWELLS LTD.

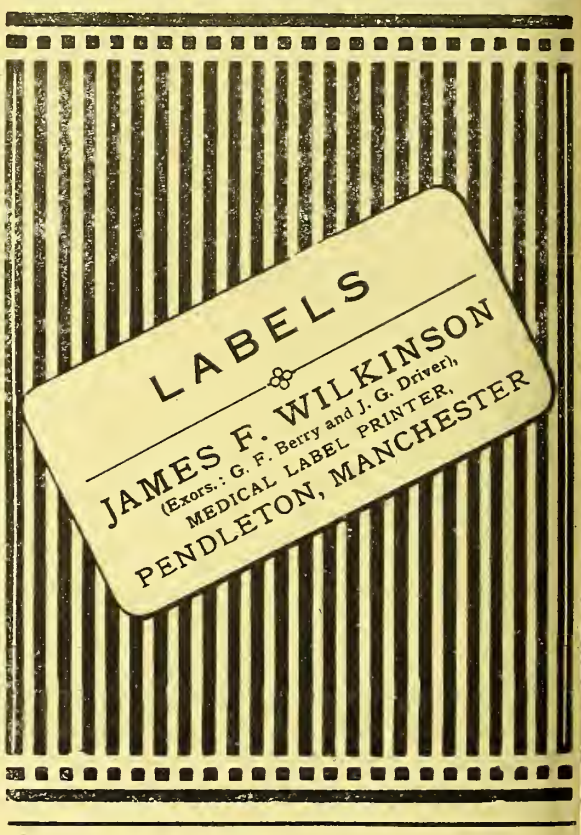
RELIABLE TOOTH BRUSHES.

Gloria Silverdrawn (Assorted Patterns.)	20/-	doz.
ditto Hard, White or Yellow	22/-	,,
ditto Ex. hard ,, ,,	24/-	,,
Mitre - - -	16/-	,,
Elephant - - -	14/-	,,
Anchor - - -	12/-	,,

GROSS LOTS NAMED FREE. CARRIAGE PAID.

We do not Sell Foreign Tooth Brushes, but our own make only.

A selected £12 parcel of Hair Brushes from 50/- to 150/- per doz., carr. paid.
Made at our Factories, AXMINSTER, DEVON.
London Office: 6 East India Avenue, E.C. 3.



LILAC DISTOL

A Perfume of the Countryside.

THE advent of the "Chara" has revived the half-forgotten joys of the open road with its fragrance of lilac and honeysuckle. This call to the countryside creates a demand for the simple English perfumes which can be so faithfully, quickly and economically reproduced in your own pharmacy from "Distol" Ottos.

There are many English floral odours among the 34 "Distol" Ottos, an ounce of any of which makes 80 ounces of choice perfumery by the simple addition of S.V.R. and Aqua Dest. without tinting, filtering, blending, distillation or any other time-absorbing process. Price 7/6 per oz. Samples of any six on request.

THOMAS KERFOOT & Co LTD.
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

COPYRIGHT

NESTOR MOURANCHON.

Offices: 40 Rue Damremont, PARIS. Telegrams: "Barthgay Paris." Telephone: Marcadet 15/92.
Distilleries and Laboratories: Chateauneuf-Val-St.-Donat (nr. Grasse), and Romans (Drôme).

SPECIALITIES: Menthes, Neroli, Petitgrain, Patchouli, Otto of Rose, Violet Essence, Gant de Saxe.
"ESSENCES DE MONTAGNE" and Imported Products.
Lavender, Aspic, Thyme, Girofle, Badiane, Geranium, Ylang Ylang, Musk, Ambre.

PRICE LIST ON APPLICATION TO WHOLESALERS ONLY.

Sole Agents for British Isles and Colonies:—

A. BREZET & CO. LIMITED,

19 ST. DUNSTAN'S HILL, LONDON, E.C. 3.

Telephone: Avenue 3543. Telegrams: "Abrezical, Phone, London."

MENTHOL CRYSTALS
PEPPERMINT OIL

We are at all times in position to quote c.i.f. Send us your inquiries by cable. We sell all brands, but, unless otherwise specified, we ship "J.M." Brand, which we sell under our guarantee that chemical analysis will prove it in every respect as pure as any.

Remember that we are entirely British-American owned and operated.

THE MUTUAL TRADERS

24 NAKAYAMATE-DORI, 2 CHOME, KOBE, JAPAN.

Cable Address: "SIMSLAND."

(9)

PURE ESSENTIAL

OIL OF HOP.

Singly and fractionally distilled.
HIGHEST CONCENTRATION AND PURITY GUARANTEED.

Prices, samples and information from the distillers:—

WHITE, TOMKINS & COURAGE, LTD.

HEAD OFFICE:
48 Mark Lane, LONDON, E.C. 3.
And at
LIVERPOOL, BELFAST, BOSTON, and TANDRAGEE.

Dispensing Bottles and Vials

Ordinary quality or Quinine-tinted.

Blue Lotion Bottles

Lettered "NOT TO BE TAKEN."

White Flint Hygienic Feeders

I. ISAACS & CO. 106 MIDLAND ROAD, ST. PANCRAS, LONDON, N.W. 4

Established 100 Years.

MAKING MONEY is YOUR BUSINESS

and we can offer you a new line which will help you to make it, namely

"SANOID" SOAP

It is the best Soap that modern science can produce, made from edible fats and free from excess of alkali. Its perfume is extremely pleasant but not overpowering. Its high-class and very neat packing are distinctly appealing to the most discriminating buyer.

AT MINIMUM PRICES IT YIELDS 50 per cent. PROFIT.

Send for a Free Sample and Terms NOW.

THE EMPIRE PERFUMERY CO.

(Proprietors: CUXSON, GERRARD & CO., LTD.)

OLDBURY, near BIRMINGHAM.

Export & Colonial inquiries invited.

Crystal glass bottles, hand-cut, hand-polished and hand-stoppered in De Luzy factories. In cream and brown display cases lined white silk. Distinguished labels, varying shapes, approximately 2¼ oz.

SUCCESS REWARDED OUR ENTERPRISE

In advertising DE LUZY
5/- & 5/6 Models of Perfumes

We now confidently offer our

14/6 & 16/6 Series

LES FLEURS, Violette, Muguet, Lilas, Jasmin, Mimosa, Rose and Oeillet - @ 116/- per doz.
Origan, Chypre and Ambre - @ 132/- ,,

Carriage Paid with Cards and Samples.

THEIR GOODNESS AND BEAUTY WILL CREATE READY SALES DURING COMING PERFUME SEASON

W. H. CALNAN & CO.
30-32 LUDGATE HILL, E.C.4.

DE LUZY
DAINTIEST of POPULAR-PRICED FRENCH PERFUMERY.

ROSE SUPRÊME DE FRANCE.

A New Perfume, designed to meet the requirements of Pharmacists preparing their own Powders, Creams and Toilet preparations in general.

Of fine quality and constant strength, it will be recognised by the trade to be the perfume of the year.

Prices & Samples from the Manufacturers—

R. LANE-HALL & CO., LTD.
1 STEWARD STREET,
LONDON, E.1.

A WORD OF ADVICE TO CHEMISTS.

WE have made important advertising contracts with the leading fashion papers of Great Britain, to run for the next twelve months, bringing to the notice of everyone the World-wide popular

Place some jars of this Cream in your window NOW, together with the new handsome Showcard, and benefit by this advertising campaign to the utmost extent. It will cost you nothing; it will bring business to you without a doubt.

CALMON & NEATE,
Sole Agents for J. LESQUENDIEU, Paris.

8 Gerrard St., London, W. 1.
12 Rue Vivienne, Paris.

JOB BROTHERS

GUARANTEED PURE GENUINE

NEWFOUNDLAND NON-FREEZING MEDICINAL COD LIVER OIL

IS THE FINEST OIL PRODUCED

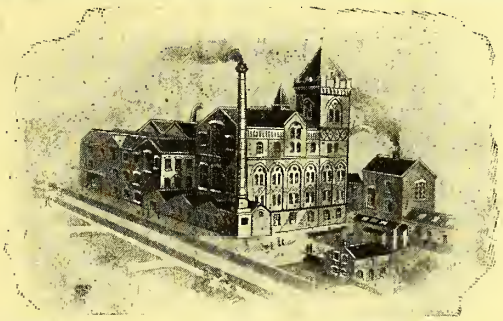
It is perfection in colour, smell, taste and absolute purity. Manufactured from the finest fresh Cod Livers on same day as fish caught.

WHOLESALE ONLY

JOB BROS., Manufacturers, Tower Building, LIVERPOOL

Telegraphic Address: "JOB LIVERPOOL." Tel.: 1039 CENTRAL.

And at ST. JOHN'S, N.F. Established 1780.

"John  Bull"

(REGD.)

MALT EXTRACT

and

COD LIVER OIL

Does not separate.

Supplied in Bulk, Jars, Cardboard Containers, &c., for Wholesale and Export only.

PAINE & CO., LTD., ST. NEOTS, HUNTS.

TERPENELESS OILS
BRITISH MADE

We manufacture exclusively ourselves all kinds of Terpeneless Oils, and invite inquiries from users throughout the world.

WE SPECIALISE IN TERPENELESS:

Anise (Anethol)
Bay
Bergamot
Caraway
Cassia
Cinnamon
Clove
Dill
Geranium
Ginger
Juniperberry
Lavender
Lemon
Limes
Mandarin
Nutmeg
Orange
Peppermint
Petitgrain
Rosemary

CINNAMIC ALDEHYDE
GERANIOL
CITRAL
EUCALYPTOL

SICILIAN
LEMON - BERGAMOT
ORANGE - MANDARINE.

SPINELLI
The Oils that have a Long Reputation for Quality.

In the manufacture of our Terpeneless Oils it was imperative that we secured the very finest Sicilian Oils to work upon. After several exhaustive tests we came to the conclusion that the "SPINELLI" brand of Sicilian Oils gave us the best results. As we were able to place large orders for our own needs with the manufacturers, we have pleasure in stating that they have entrusted us with their British Agency, and we offer to users of Sicilian Oils the benefit of our experience. There is quality in every package. Guaranteed Genuine Oils of authentic origin, and to conform to any analysis as to purity.

HOLLANDS DISTILLERY LTD.
Lavington Street, Southwark, LONDON, S.E.1.

A B C Code, 5th Edition.
Western Union.

Telegrams: "LANDSLOH LONDON."
Telephone: Hop 898.

AMERICAN AGENTS—O. A. BROWN CO. INC., 99-101 Beekman Street, NEW YORK.
CANADIAN AGENTS—F. S. JARVIS & CO., 18 Toronto Street, TORONTO.

STRODONIA Vanishing Cream.

NOW SUPPLIED IN
ALUMINIUM
SCREW-CAPPED JARS.

10½d. size—7/6 doz. 1/3 size—10/6 doz.

FROM LONDON WHOLESALERS.

Direct orders value £5, subject to 1 doz. 1/3 size Bonus for window display and 5% discount cash, one month; £2/10/0 subject to ½-doz. 1/3 size Bonus for window display, net.; £1/10/0 subject to ¼-doz. 1/3 size Bonus for window display, net. Carriage paid on £1/10/0 upwards.

STRODE COSH & PENFOLD, Broadmead, BRISTOL.

Orisal Regd.

The successful Remedy for PYORRHŒA.

Prescribed by the Dental Profession.

PRICES.

	Wholesale (including Government Duty)		Retail
Dental Paste	22/- per doz.	,, 6d. ...	2/6 per tube.
Mouth Wash	44/- ,,	,, 1/- ...	5/- per bottle.
Special Brush	24/- ,,	... ...	2/6 each.

Of Wholesalers, or direct from

ORISAL Ltd., 77 George St., Portman Sq., W.1.

CHLOROPHYLL

FAST TO LIGHT — ABSOLUTELY PURE

Telegrams—"Sandoz Bradford."
Telephone—Bradford 1302.

THE SANDOZ CHEMICAL CO., Ltd.
BRADFORD.

SYNTHETIC OTTOS

"Zinyl" Brand (Regd.)

TRUE SYNTHETIC PRODUCTS

TOILET PREPARATIONS

¶ These Synthetic Ottos, by reason of their enormous concentration, are most economical in the manufacture of the above, and are, of course, far away stronger than the "concentrated perfumes" offered, under various fanciful titles, the basis of which consists of essential oils directed to be diluted with from 40 to 50 volumes of spirit.

Oriental Synthetic Otto

"ZINYL" BRAND.

This beautiful product has a most powerful heavy odour absolutely reminiscent of the Far East. It is a pronounced success, being already supplied to various well-known houses, and on account of its great strength is really economical in use.

17/6 oz.

Extract from a correspondent's letter this week :

"This Oriental Synthetic Otto is a most beautiful and striking odour, "and we like it very much indeed ; it is excellent when used in "the manufacture of face powders and cold cream."

(A satisfactory repeat order follows.)

H. E. STEVENSON & CO.

Manufacturing Chemists and Wholesale Druggists,

122 GREAT SUFFOLK STREET, LONDON, S.E.1.

Complete Price List on application, or refer to the "C. & D." Diary, 1920.

Daily Mail
MORE THAN A MILLION SALE.
LONDON. MANCHESTER. PARIS. NO. 7,590. THURSDAY, AUGUST 5, 1920. ONE PENNY.

Pears' SOAP

Protects *and* Beautifies *the* Skin

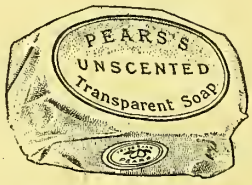
Considering the enormous importance of a healthy skin to the general health of the body, it is amazing how careless many people are as to the sort of soap they use.

The desire for a beautiful complexion is not mere vanity, it is the expression of a natural craving for health. A beautiful skin is invariably a healthy skin, and you will ensure a healthy skin by the constant use of Pears' Transparent Soap. Consider how many times a day you *rub* soap into your pores with hot water. Have you ever troubled to satisfy yourself that what you use cannot damage their delicate membrane? The skin is one of the most vital organs. It helps to purify the body, defends it from contamination and holds the delicate sense of touch. Under the artificial conditions of modern life, it requires help efficiently to perform its functions. Pears' Soap provides that help. Invented 130 years ago, its reputation as the best is still unchallenged. Use it constantly, and however poor your complexion it will discover a new vitality; however good, its beauty will increase.

You know Pears is pure because you can *see* that it is. The transparency is your guarantee that the soap is in perfect condition and has been made from the purest ingredients properly combined. Poor materials, careless manufacture, the presence of water, all these would make the soap cloudy and muddy. Next time you buy a box, then, note its natural fragrance and regard its deep red-amber colour, for these are the visible signs of the excellence that ensures for you and your children a purity perfected by more than a century's experience and skill.

Matchless for the Complexion.

The Unwrapped Tablet.



The Familiar Wrapper.

Sold everywhere in boxes of 3 tablets, or separately, price 7d. per tablet.

A. & F. Pears, Ltd., 71 - 75, New Oxford Street, London, W.C. 1.

Have you read one of Pears' Golden Series?

We wish to draw the attention of our friends in the trade to the advertisement reproduced here.

Daily Mail
MORE THAN A MILLION SALE.
ON. MANCHESTER. PARIS. NO. 7,608 THURSDAY, AUGUST 26, 1920. ONE PENNY.

Pears is the best soap under the sun.

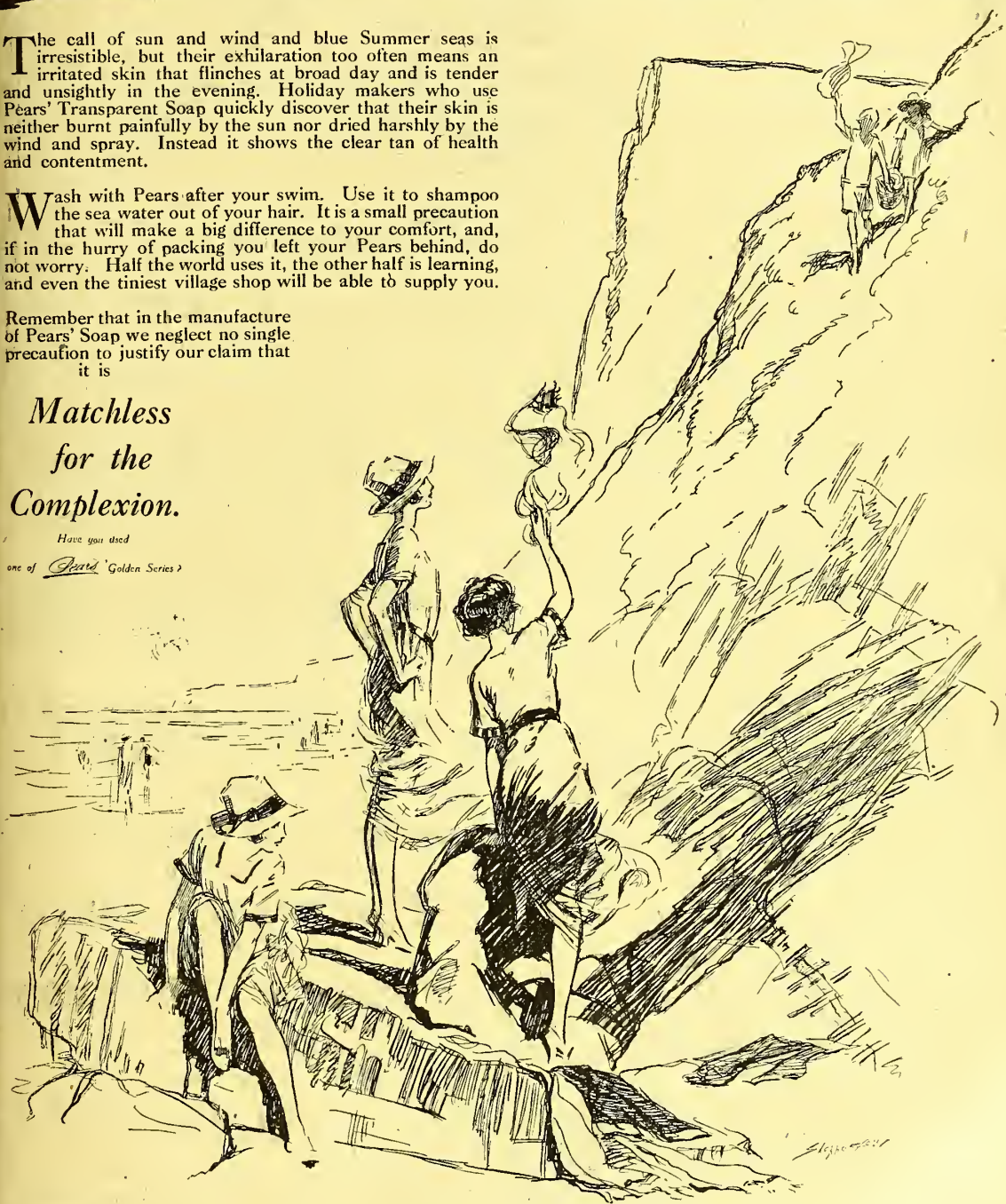
The call of sun and wind and blue Summer seas is irresistible, but their exhilaration too often means an irritated skin that flinches at broad day and is tender and unsightly in the evening. Holiday makers who use Pears' Transparent Soap quickly discover that their skin is neither burnt painfully by the sun nor dried harshly by the wind and spray. Instead it shows the clear tan of health and contentment.

Wash with Pears after your swim. Use it to shampoo the sea water out of your hair. It is a small precaution that will make a big difference to your comfort, and, if in the hurry of packing you left your Pears behind, do not worry. Half the world uses it, the other half is learning, and even the tiniest village shop will be able to supply you.

Remember that in the manufacture of Pears' Soap we neglect no single precaution to justify our claim that it is

Matchless for the Complexion.

Have you used one of Pears' Golden Series?



These announcements are representative examples of the great weight of effective publicity which is being used at the present time to further the sales of Pears' Soap.

"HEADQUARTERS"

SPANISH ESSENTIAL OILS

LARGE STOCKS

LONABARC BRAND

RIGHT PRICES

EVERY KIND.

PRICE LIST GLADLY SENT ON APPLICATION.

LONABARC TRADING CO., LTD.

5 FINSBURY SQUARE, LONDON, E.C. 2.

Telegrams: "Lonabarc, Finsquare, London." Telephone: Clerkenwell 2096.

To Satisfy your Customers Is to Increase your Business

LINARIS TOILET PREPARATIONS

(1) Give absolute satisfaction–Guaranteed
(2) Are prepared from the finest Drugs obtainable.
(3) Show splendid profits to the Retailer.
(4) Invariably bring repeat orders.
(5) Are beautifully packed in Opal-topped Jars and large golden boxes tied with purple ribbon. Make a splendid counter show.

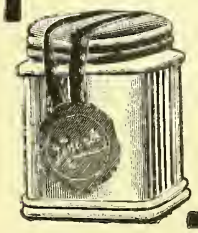
LINARIS Vanishing Cream
LINARIS Bath Powder
LINARIS Henna Shampoo Powder
LINARIS Camomile Shampoo Powder
LINARIS Massage Cream
LINARIS Tonic Cream
LINARIS Beauty Cream
LINARIS Face Powders

Profit of over 33⅓%

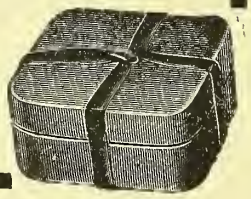
Send direct to

LINARIS TOILET PREPARATIONS (Dept. X)

31 Westbourne Grove, London, W.2



Carriage paid on all orders over £5.



PEPPERMINT OIL

(NEW CROP)

"FLOR MINT"

BRAND.

Distilled by LOUIS RAISSAC

Proprietor of the

Montagne Noire

Plantations and Distilleries at

Revel & Toulouse,

FRANCE.

Sole Agent for the U.K.:

C. A. CHARPENTIER,

75 Great Titchfield Street, LONDON, W.1.

Telephone: Museum 6412.

Telegrams: "Synthetoli, Wesdo, London."

DESRUE-LARENE
TOILET REQUISITES

are stocked by most Chemists in preference to any other, as they show a quick sale and larger profits. If you have not yet tried them, do so, you will not regret it. Try first a sample order on which we will allow a special discount of 10% for this week only. Make the best of this opportunity.

No. 1. CRAYONS JAVANAIS, 1 doz. on card (polishing sticks for the nails) ... 3/6 doz.

" 2. CRAYONS JAVANAIS, 1 doz. in box ... ... 3/- "

No. 6. RAISIN SIRIUS A LA VIOLETTE lip salves, metal cases, 3 colours Doz. 10/6

" 7. COMPACT POWDERS (Pink, Ocre, Naturelle, Violet) ... 9/6

CRAYONS NEPHTYS (eyebrow pencils) (Black, Brown, Chatain, Blue) :—

No. 3. Large Size ... ... 8/- doz.

No. 4. Medium " ... ... 6/- "

No. 5. Small " ... ... 4/- "

No. 8. POUDRE DES ROSES COMPACT (Light and Dark Reds) ... Doz. 9/6

" 9. KERATOL (enamel for the nails) (enamel and dissolvant) ... 22/6

No. 10. KERATOL (enamel only) 18/- doz.

" 12. VARENOL (enamel for the nails) (enamel & dissolvant) 14/- "

" 13. VARENOL (enamel only) 9/- "

" 14. DJEM-KIR, large size (liquid red for the lips)... 23/6 "

No. 15. DJEM-KIR, small size (liquid red for the lips)... 16/- doz.

" 16. POMADE ROSAT (Pink & White)... ... ... 3/6 "

" 18. RAISIN NEPHTYS, lip salves. (Red & Scarlet) 3/6 "

DESRUE-LARENE, PARIS.

Sole Agents :

J. NASSAN & CO.

Telephone : Central 8799.

129 WOOL EXCHANGE,
BASINGHALL STREET,
LONDON, E.C. 2.

WAVCURL

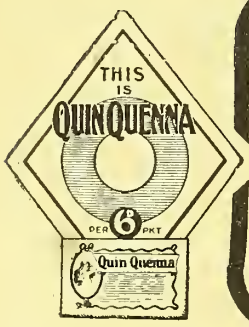
THIS article has now been sufficiently long before the public to enable them to sample its merits. This the public have done on a large scale, and many delighted users have come again and again to the retailers they buy from for further supplies. The demand has been extraordinary. At first the proprietors tried to cope with it per post, but they soon saw that this was too cumbersome and tedious a method, and they are now gladly availing themselves of the services of the trade. Wavcurl is a first-class seller and a first-class payer, too. The profits are all they should be on a toilet line, as any reader can see for himself in the P.A.T.A. Protected List. Forty per cent (40%) should surely awaken your interest, especially in a line that sells at sight. All classes of ladies, from the titled dame to the busy factory worker, are using it as their readiest means of keeping themselves attractive, notwithstanding the great demand there is just now upon their time. To the user it is a great time-saver; to the seller, a great money-maker. We invite your application for Showcards and Dummies for window-dressing. A Wavcurl window-show in an industrial or factory area will simply make the shillings shower into your till. Address post card to

THE WAVCURL CO.,
FULWOOD HOUSE, HIGH HOLBORN, W.C. 1

	Per doz.
1/6 Wavcurl (in packets) ...	9/-
2/9 Wavcurl (in bottles) ...	21/-
1/6 Complexion Cream ...	10/-
2d. Shampoo Powder ...	15/- gross.

	Per doz.
1/6 Duvetine (Superfluous Hair Remover) ...	9/-
1/6 Wavcurl Hair Tonic (9 in Powdered Form)	9/-
1/6 Eyelashine	9/-
Showcards for Window Dummies for Show	no charge

Agents: PARIS.—A. W. Scott, 38 Rue du Mont Thabor. CANADA.—W. W. Barry, 1 Port Street, Montreal.



Let the Diamond

win trade for you. It does so immediately it is shown on your window. People simply must stop—they read—and the bulk of them step right in for a 6d. packet of QUIN QUENNA, especially if it is a lady. This is just one of the ideas for getting business for

4/- PER DOZ.

6d. P.A.T.A.

Quin Quenna
BETTER THAN A SHAMPOO

Then there is the wonderful profit of 43%. The well-placed and cleverly-thought-out advertising campaign that sends people to the Chemist's, going on now, and all the time—never relaxing.

43% **THIS OFFER STILL STANDS:** 1 × 6 doz. Carton 1 doz. Bonus. Diamond Bill, Wrappers, and other advertising material. **43%**

24/- ONLY.

THOS CHRISTY & CO., 4-12 Old Swan Lane, London, E.C. 4.

LOTOZONE

SHAMPOO DE LUXE

A superior tonic and hygienic Shampoo at a popular price. Packed in dainty slide cartons. Elegant in appearance and delightful in use. Perfumed with Irish Elegance. Counter boxes supplied.

Full particulars on request.

TOILET PREPARATIONS

LOTOZONE TOOTH PASTE
LOTOZONE CREAM
LOTOZONE FACE POWDER
LOTOZONE POWDER PAPER

The Shampoo Salesman, free on application, gives full details of prices and profit.

THE EVAN WILLIAMS COMPANY, LIMITED, 18 Ogle Street, LONDON, W. 1.

SILKODONO
for the HAIR & SCALP

General Press ADVERTISING
Has NOW Commenced

The big Advertising Campaign which will make known the merits of Silkodono to every man and woman in the Kingdom has begun. The first Advertisements are appearing in the leading Provincial Daily and Weekly Papers, and these will quickly be followed by extensive Advertising in the big National Newspapers.

The way in which Silkodono has been taken up by the trade—before our public advertising commenced—has been perfectly astounding. Ever since our first advertisement appeared in this Journal we have been flooded with orders. Silkodono is already an assured success. It has won the enthusiastic support of the trade, and it will just as surely gain the approval of the great British Public. Chemists who have had the foresight to order a stock of Silkodono are now going to reap immediate benefits from our advertising—at no expense to themselves. If you have not yet ordered a supply you should do so without further delay. The public demand for Silkodono will be continuous—you will realise the necessity of stocking it sooner or later—but why not *now?* Every day you are without Silkodono you are losing money, and your loss will be your competitor's gain.

Silkodono is well named "The Magic Hair Remedy," and it is absolutely the finest value in Hair Preparations on the Market. The 2/6 size is an 8-oz. bottle, the 4/6 size is a 16-oz. bottle. It is beautifully packed and sells at sight. And it keeps selling because it is a genuine preparation which accomplishes definite results. ***We are giving away thousands of Free Samples. Send for one and try it for yourself. You will then offer Silkodono to your customers with confidence.***

Special TERMS
to Chemists who order before
August 31

1 Doz. SILKODONO
2/6 size £1 : 0 : 0
SPECIAL BONUS
Two extra Bottles.
This gives you a profit of 75 per cent.

3 Doz. SILKODONO
2/6 size £3 : 0 : 0
SPECIAL BONUS
Nine Extra Bottles.
This gives you a profit of over 85 per cent.

1 Doz. SILKODONO
4/6 size £1 : 16 : 0
SPECIAL BONUS
Two Extra Bottles.
This gives you a profit of 75 per cent.

3 Doz. SILKODONO
4/6 size £5 : 8 : 0
SPECIAL BONUS
Nine Extra Bottles.
This gives you a profit of over 85 per cent.

Attractive Showcards, Booklets and Dummy Cartons Free.

Manufacturers—

SILKS TOILET COMPANY, Red Lion Street, London, W.C.1.

Telephone—Holborn 3095. Telegrams—"Silporan b, Holborn, London."

THREE GOOD SELLERS THAT PAY WELL

FROZOCLONE

(The original solid Eau de Cologne).
(Regd.)

THE WORLD'S GREAT PERFUME AND REFRESHER IN SOLID FORM

Retails (P.A.T.A.) Minimum - 3/6 giving at least 10d. Profit on each sale.

32/- - - per doz.

For EXPORT quantities of not less than four gross a substantial drawback allowance will be made.

FROZOCLONE is a convenient form of the finest Eau de Cologne, refreshing when rubbed on the forehead, equally pleasant as a smelling bottle, invaluable in a heated atmosphere and when motoring.

CARNATE (Regd.)

A NAIL POLISH PASTE with new and distinctive features. Antiseptic—Softens the cuticle—Brilliant and lasting polish.

Retails (P.A.T.A.) minimum 1/9; 15/- per doz.

ANALAX

(Reg. Pat. No. 310716)

The Ideal Fruity Laxative in Pastille Form.
DELICIOUS. RELIABLE. EFFECTIVE.
Retail (P.A.T.A.) Minimum 2/3
21/- per doz., stamped.

R. DEMUTH'S LABORATORIES, 68 Salusbury Road, and Montrose Avenue, LONDON, N.W.6

Telegraphic Address: "Boulbene London." Telephone: 525 Willesden.

ODOR-O-NO

The Anti - Dress Shield Toilet Water

Effectively corrects excessive perspiration.

Extensively advertised in American and English periodicals.

Distributing Agents:
The AMERICAN DRUG SUPPLY CO.
6 Northumberland Avenue,
LONDON, W.C.2.

Obtainable from all Wholesalers.

EDWARDS' HARLENE

TOILET SPECIALITIES

THE WORLD'S BEST

Have you a Good Stock of "Harlene Hair Drill" Preparations?

"HARLENE" FOR THE HAIR
"UZON" BRILLIANTINE
"CREMEX" SHAMPOO POWDERS
"ASTOL" FOR GREY HAIR
"ASTINE" VANISHING CREAM
"ASTINE" TOOTH CREAM
"ASTINE" SHAVING STICK
"ASTINE" NAIL CREAM

No Chemist or Store can afford to be without this unique line of Toilet Preparations

It is most desirable in your own interest to carry a good stock of these preparations, as owing to the enormous demand created by a world-wide advertising campaign the number of customers is daily increasing. Do not put yourself in the unenviable position of turning money away.

Thousands of sample packets are dispatched to the general public daily, comprising :—

1. A Trial Bottle of "Harlene."
2. A "Cremex" Shampoo Powder.
3. A Trial Bottle of "Uzon" Brilliantine.
4. Book of Instructions.
5. A Trial Bottle of "Astol."
6. A Sample of "Astine" Vanishing Cream.

FOLLOW THE TIDE OF SUCCESS.

Watch the Great Free Gift Advertising Campaign that brings the Customers to YOUR Shop.

For Particulars, Terms, etc., write to

EDWARDS' HARLENE, LTD.

20, 22, 24 & 26 LAMB'S CONDUIT STREET, LONDON, W.C.1

THE

"ERASMIC" SHAVING STICK

Should be one of your leading lines. Can be recommended as the finest stick on the market, Now being advertised in the Leading Papers.

PROFITS GOOD AND PRICES PROTECTED.

"ERASMIC" Perfumers
WARRINGTON.

ON P.A.T.A.

RIGOLLOT'S MUSTARD LEAVES

FOR PLASTERS.
THE ORIGINAL.
THE **ONLY** GENUINE.

7d., **1/- & 1/7** Packets
5/3, 9/-, 14/3 per Doz.

GUYOT-GUENIN & SON
67 Southwark Bridge Road
LONDON - - - - S.E. 1.

FOR LARGE BUYERS.

Bay Rhums

ALSO

Toilet Paraffins, Lime Creams, Shaving Sticks, Tooth Powders, Dental Creams, Vanishing Creams, Shampoo Powders, Pomade Hongroise, Brilliantines, Dry Shampoo (Liquid), and all Toilet Goods.

LOW PRICES for HIGH QUALITY.

C. A. STOKES & CO., Ltd.
Manufacturing Chemists and Perfumers,
11 ECLIPSOL WORKS, BRISTOL.

A. BOURJOIS & Cie, Ltd.

66 CARTER LANE - LONDON, E.C.4.

Please note that the prices of

Poudre de Riz de Java (Bourjois)

are as under:

2/- size. No. 45		1/3 size. No. 495	
1 doz. -	16/- per doz.	1 doz. -	11/- per doz.
6 „ -	15/9 „	6 „ -	10/9 „ „
12 „ -	15/6 „	12 „ -	10/6 „ „

The P.A.T.A prices for Java Powder have been increased to 2/- and 1/3 per box.

May 1, 1920. *No. 495 supplied in the United Kingdom only.*

Nothing Succeeds Like Success.

DELIGHTFUL TO USE—PROFITABLE TO SELL.

SAPON

Cereal SOAPS

Household and Toilet.

The demand for all Varieties is ENORMOUS.

BETTER SOAPS—BETTER PROFITS

SAPON SOAPS say more in their own favour than we can put into print.

SATISFACTORY ALL WAYS ALWAYS.

We are in no way connected with any combine of Soap Makers

WRITE FOR PRICE LIST.

SAPON SOAPS LTD. LONDON BRIDGE, E.C.4.

B B

DEARBORN

LIMITED

37 Gray's Inn Road, LONDON, W.C.

Toilet Specialities.

	Price per doz. to Retailer.	Selling Price P.A.T.A.
PILENTA SOAP - A complexion soap.	10/-	1/-
PROLACTUM - - For the lips.	10/-	1/-
PARSIDIUM JELLY For wrinkles.	10/-	1/-
ALLACITE of ORANGE BLOSSOM A dressing cream.	22/6	2/6
BORANIUM - - A hair tonic.	22/6	2/6
CLEMINITE - - For a face lotion.	22/6	2/6
COLLIANDUM - - For a face tint.	22/6	2/6
PERGOL - - - A deodorant.	22/6	2/6
STALLAX - - - For a shampoo.	22/6	2/6
JETTALINE - - For clearing the skin.	31/6	3/6
PHEMINOL - - A depilatory.	36/-	4/-
MENNALINE - - For the eyelashes.	36/-	4/-
MERCOLIZED WAX A face cream.	31/6	3/6
STYMOL - - - For oily complexions and blackheads	36/-	4/-
BARSYDE - - Dandruff eradicator.	22/6	2/6
TAMMALITE - - For grey or faded hair.	22/6	2/6
LIQUID PERGOL - To check excessive prespiration locally.	31/6	3/6
BICROLIUM - - For whitening the hands.	22/6	2/6
HARAPOSA - - Nut oil shampoo.	22/6	2/6

STOCKED BY ALL WHOLESALE HOUSES

COLONIAL DEPOTS AND AGENCIES.

AUSTRALIA:
ALL WHOLESALERS, and
DEARBORN, Ltd., Grace House, Clarence Street, Sydney.

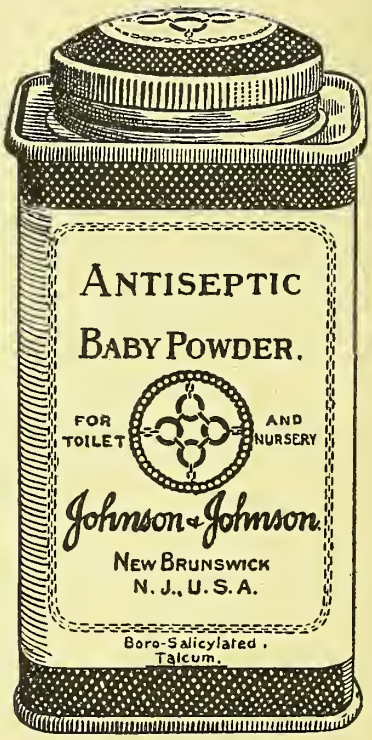
SOUTH AFRICA:
LENNON & CO., Ltd (Cape Town)
SIVE BROS. & KARNOVSKY, Ltd. (Johannesburg)

INDIA:
KEMP & CO., Ltd. (Bombay)
THE INTERNATIONAL TRADING CO., Princess Street (Bombay)
R. MACLURE (Madras)
SMITH, STANISTREET & CO. (Calcutta).
MEHTA BROS (Calcutta)
JAMNADAS BROS. (Bombay)

NEW ZEALAND:
SHARLAND & CO., Ltd. (Auckland & Wellington)

SOUTH AMERICA:
DEARBORN, Ltd., Calla Salta 264, Buenos Aires.

SOLD THE WORLD OVER.



Antiseptic TOILET & BABY POWDER

JOHNSON & JOHNSON
British - Manufacture.

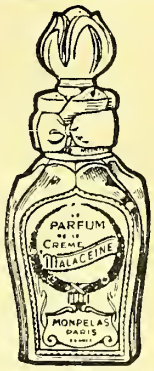
Made from the Best Talcums and Delicately Perfumed.

Bonus given for order of 2 gross and window display.

For particulars apply to—

JOHN TIMPSON & Co., Ltd.
104 Golden Lane - - E.C. 1.

MALACEÏNE



MALACEÏNE PRODUCTS

Manufactured by

"PARFUMERIE MONPELAS"

PARIS.

On the P.A.T.A.

No.		Wholesale Price Per Doz.	Minimum Retailing Price Each.
62	Crème Malaceïne, Small size - -	21/-	2/6
63	,, ,, Medium size- -	42/-	5/-
64	,, ,, Large ,, - -	66/-	7/6
67	Poudre Malaceïne - - - -	34/-	4/-
71	Malaceïne Toilet Soap - - -	31/-	3/6
78	,, Shaving Soap - - -	31/-	3/6

SHOWCARDS SUPPLIED.

An extensive Advertising Campaign is now proceeding in all the principal Society Papers.

SPECIAL TERMS—

Small quantities - - - - - $7\frac{1}{2}$% 1 Month

£5 lots and upwards - 5% Invoice and $7\frac{1}{2}$% 1 Month

SOLE WHOLESALE AGENTS FOR

GREAT BRITAIN, IRELAND, SOUTH AFRICA and INDIA—

WILLIAM TOOGOOD LTD.
77, SOUTHWARK ST
LONDON, S.E.1.

Taxed as a Medicine

The Government Stamp found on every tube of Forhan's For the Gums has been placed there because of Forhan's medicinal properties.

At the same time that stamp is your license to sell this good dentifrice at any hour of the day, just as you would any other medicine.

Advertised consistently in many newspapers and magazines throughout the United Kingdom, recommended by leading dental surgeons everywhere for the treatment of Pyorrhea, infl med gums, etc., Forhan's For the Gums—the pleasant, smooth tooth paste in the double-size tube—should be on your shelves. Write for prices. Displays upon request.

THOS. CHRISTY & CO.
4-12 Old Swan Lane, LONDON, E.C.4

Forhan's
FOR THE GUMS

CITY COMB CENTRE

WE *HAVE THE LARGEST SELECTION OF*

COMBS

IN LONDON.

VERNON POWELL LTD.

LOW PRICES.
DELIVERY FROM STOCK.

9-10 St. Andrew's Hill
LONDON, E.C. 4.

Telephone: CITY 3125

WHOLESALE AND EXPORT ONLY.

BEWARE!!

ANTHRAX
Is an EVER-PRESENT DANGER!

Be on the safe side and stock
NONE BUT OUR SHAVING BRUSHES
and Camel Hair Pencils.
All Guaranteed FREE of ANTHRAX.

We also stock
COMBS - PUFFS - BAG PUFFS
Bone and Ivory NAIL FILES, and all Manicure Requisites and Sets.

Wholesale and Export only Supplied.

A. E. DEPRETER,
24 HOLBORN, LONDON, E.C.1
Phone: Holborn 3182. Grams: "Aedeprelon, Smith, London."

The public are continually being reminded of the special qualities of

EUCRYL
DENTIFRICES

by our constant advertisements in the Press.

The policy of EUCRYL to the Chemist is unaltered. It is still the "BIG PROFIT LINE." We give a generous bonus for a Window and Counter Display.

Will you co-operate by giving them a prominent and permanent position in your window and on your counter, and share in the increased demand.

Send us a post card, and we will forward you a supply of advertising material by return.

EUCRYL TOOTH POWDER in Tins 7½d. & 1/2. PASTE in Tubes 10½d. & 1/3.

EUCRYL LTD., 138 BOROUGH, S.E. 1.

Telegrams: "EUCRYL, SEDIST, LONDON." Telephone: Hop 2268.

Your Customers will soon demand

Pasttella

Pearle Poudre and Nail Poudre

Manufactured by Romaine LONDON

The Pearle Poudre *gives minimum of* 53% *on outlay*

Nail Poudre *gives minimum of* 55% *on outlay*

Prices:-

Pasttella Pearle Poudre

No 1 Large Size £1·5 6 per doz
No 2 Medium 12 9
No 3 Small 6 4½

Pasttella Nail Poudre

No 1 Size ..... 7 9 per doz

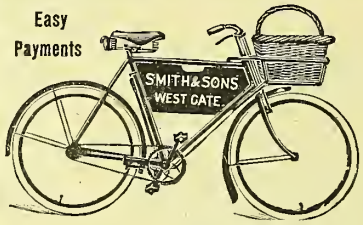
Larger quantities at reduced rates
Daintily boxed in black and gold with red seal.
Attractive Showcards with each order

Sole Distributors

F. NEWBERY & SONS LTD
27-28 CHARTERHOUSE SQ.
LONDON, E.C.

The finest investment you can have, for the advertisement is worth the cost of the bicycle.

Easy Payments



DUNLOP TYRES

TWO STRONG BRAKES

WHEELS 26 × 1¾

WRITE FOR LIST

MOHAWK CYCLE CO., LTD.,
825 ALEXANDRA ROAD, HORNSEY, N.

ALL CHEMISTS SHOULD STOCK ABDINE

THE GOLD MEDAL FRUIT DRINK.

Quick Seller. Big Profits. Over 40 years' Reputation.

"Abdine" is the most popular Health Drink, superior to all Mineral Waters. Sold in Packets, **2d.** each.

Wholesale Prices on application. Sample Box 1/6.

D. M'GLASHAN, M.P.S., [Abdine Works, Westfield Road, EDINBURGH.

ART OF DISPENSING. (9th Ed.) 8/-, by post 8/6.

VETERINARY COUNTER PRACTICE. 6/-, by post 6/6.

CHEMIST'S DICTIONARY OF MEDICAL TERMS. 3/6, by post 3/10

THE CHEMIST AND DRUGGIST, 42 CANNON ST., E.C. 4.

Delphinus

TOILET PREPARATIONS

Face Cream. Dental Cream.
Brilliantine (Solid & Liquid).
Pomade Hongroise. Nail Polish.
Shampoos. etc.

Products of Unvarying Excellence

We do not incur heavy expenses in advertising to the public, but prefer to give our Clients the benefit of increased profits.

Sole Agents for Scotland:

Messrs. HENDRY & SMITH & Co.
83 Renfield Street, GLASGOW.

BE WISE! *Write us* **TO-DAY.**

Prepared by
The Delphinus Mfg. Co.
45 Edward Street, Brighton.
Cables & Wires: Hongroise, Brighton.

Delphinus TRADE MARK.

COPYRIGHT.

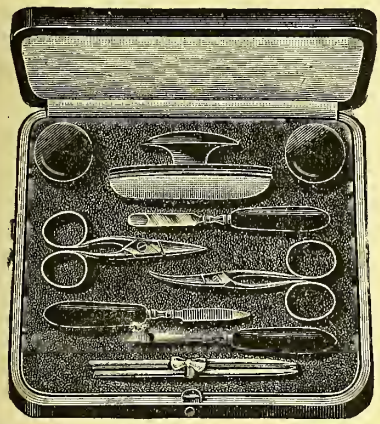
Telegrams: "Refreshing, Cent., London." Telephone: Central 4461—4462.

Established 1892.

R. J. REUTER,

Head Office: **69 CARTER LANE, LONDON, E.C.4.**

Factory: **19/20 Queen's Buildings, Old Bailey, London, E.C.**



SPECIALITIES

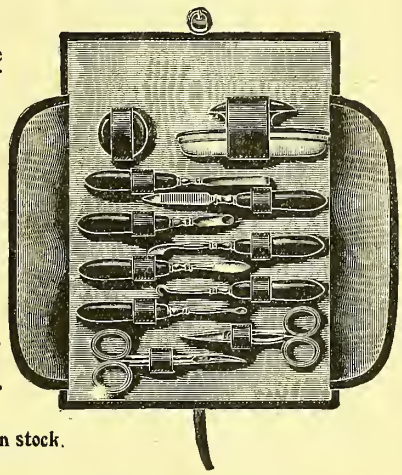
Inquiries invited for the following specialities of our own manufacture.

"VĒVAX"
Trade Mark

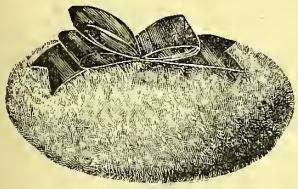
MANICURE CASES

Roll-up, folding or box patterns.

Over 320 numbers to select from.



Manicure requisites of every description in stock.



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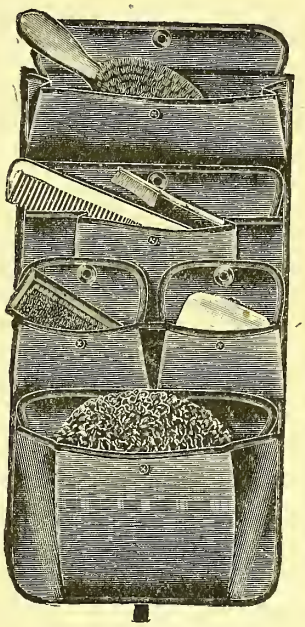
Trade Mark

POWDER PUFFS

All varieties and sizes suitable for **Retail and Export trade**, highest class finish, artistic colours and designs.
(Over 450 sizes and designs to select from.)



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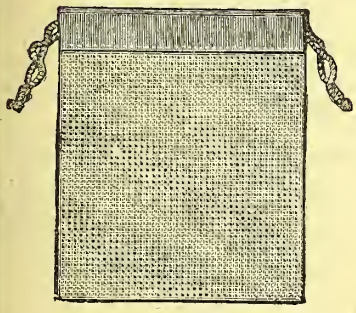
Trade Mark

SPONGE BAGS



A large selection manufactured with exclusive materials, guaranteed suitable for export to any part of the world.

"VĒVAX"
Trade Mark

HOLDALLS

(Roll-up toilet tidies.)
(Over 100 patterns and designs to select from.)

Inquiries invited. *Prices on application.*

Special Quotations for quantities.

IT WILL PAY YOU TO VISIT OUR SHOWROOM.

What Mr. Horatio Bottomley

— THINKS OF —

ALKIA SALTRATES

THE BEST OF ALL SALINES for Liver, Kidney, or Rheumatic Disorders, Etc., Etc.

— AND —

REUDEL BATH SALTRATES

THE BATH PREPARATION PAR EXCELLENCE, cures Corns, and all Foot Troubles permanently, stops rheumatic or other aches and pains within ten minutes.

[Note:—It gives us very great pleasure to announce that the fearless and outspoken editor of "John Bull," whose readiness to praise anything good is only equalled by his promptness in condemning anything bad, has joined the long list of prominent men and women who have used our preparations with results so gratifying that they are only too glad to acknowledge the great benefits derived.—Saltrates, Ltd.]

JOHN BULL

Telephones Gerrard 9637, 9638
Telegraphic Address "Heroically, London"

Editorial Offices,
93, Long Acre,
London, W.C.

The Manager,
The Saltrates Co., Ltd.,
214, Gt. Portland Street, W.

Dear Sir :-

Now that all German Spas are taboo, may I congratulate you on your Alkia Saltrates and Reudel Bath Saltrates, which to my mind (and body) beat Carlsbad into a cocked hat.

In future, with your help, I shall certainly support Home Industries by taking my cure on the spot.

Yours faithfully,

Horatio Bottomley

What is Alkia Saltrates?

Dissolved in plain water it gives you an exact reproduction of the essential medicinal constituents found in famous Spa waters.

The dose. Less than half of what you have been accustomed to take of ordinary salines.

The taste is pleasant, children cry for it. It makes a sparkling effervescent draught.

The effects. Stimulates the liver, flushes the kidneys, purifies the blood, corrects hyperacidity and other stomach disorders, and eliminates all uric acid or any other impurities from the entire system. Best of all anti-rheumatic agents. Guaranteed free from any depressing or other bad after effects.

The price. Only 3/3 a large bottle. Enough to last the whole family for weeks.

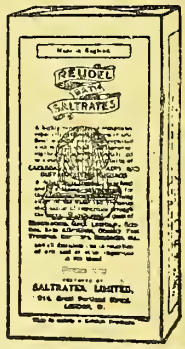
What is Reudel Bath Saltrates?

Dissolve this in plain hot water and you will have an exact reproduction of the highly **medicated** and **oxygenated** curative bathing waters found at celebrated Continental and other springs and spas.

The effects.—Softens and brings corns right out, root and all, so there is nothing left to sprout a new corn again, as when you merely cut the top off or burn it off with caustic liquids or plasters.

A **Saltrated Bath** will stop any rheumatic or other aches and pains in muscles or joints **within ten minutes**. Also its strongly antiseptic and healing qualities will cure **bad skin affections** quickly and permanently.

The price.—2/- a half-pound or 3/3 a pound. Only a handful of the concentrated compound is required for a full bath, or a tablespoonful for a strong foot bath.



The above preparations can be obtained from any chemist. Complete satisfaction is guaranteed every user, or MONEY BACK IN FULL IMMEDIATELY AND WITHOUT QUESTION. Saltrates, Ltd., 214, Gt. Portland St., London, W.1.

ESTIMONY THAT MUST CONVINCE

Can anyone imagine Mr. BOTTOMLEY giving our products his unqualified endorsement—as shown on opposite page—unless convinced beyond doubt that they are absolutely the best obtainable!

WONDER every sale always means a satisfied customer! He thenceforth becomes a regular chaser of our lines whenever anything of the kind happens to be needed.
ir customer requires no persuasion after he has once given our preparations a trial. He then **ows** they are just what he wants and is interested in no others. In other words—after you ke the first sale our goods go on selling themselves.

ALKIA SALTRATES.

A widely advertised product, which represents the maximum of possible efficiency in a saline, and the best value obtainable for the money. Being highly concentrated, exceptionally small doses are sufficient, and there is no trace of any salty or other unpleasant taste.

Protected on P.A.T.A. at the full face value of 3/3 a large bottle.

REUDEL BATH SALTRATES.

The best selling and most fragrant, refreshing, beneficial and all-round satisfactory preparation for the bath or for general toilet purposes.

Especially recommended in cases of foot trouble, or rheumatic pains, stiffness, etc. Now being extensively advertised.

Protected on P.A.T.A. at the full face value of 2/- and 3/3.

ey are as near perfection in their respective fields as it is humanly possible to get them, regardless of cost or selling price.

YOU CAN STOCK THESE RAPIDLY MOVING LINES ON GUARANTEED SALE TERMS.

arriage paid in United Kingdom on orders for three dozen, which may be assorted.

andsome Showcards of strong selling power sent free on request. splay them in your window, and attract extra business from our present extensive advertising campaign.

WE CAN GUARANTEE IMMEDIATE DELIVERY OF ORDERS FOR ANY QUANTITIES.

e are fortunate in being able to announce that foresight shown in the laying in of very heavy cks of supplies in anticipation of the shortage which afterwards developed, **still enables us to guarantee full and prompt deliveries to all customers.**

ALTRATES LIMITED, 214, Great Portland Street, London, W. 1.

Just what you want
IN
GLASSWARE
of every description.

YOU may perhaps be buying only for immediate requirements and cannot get prompt delivery of the goods wanted. Apart from our huge Provincial stock, bear in mind we have *ready for delivery* at our various London depots

APPROXIMATELY

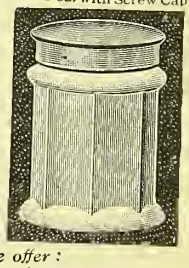
10,000 cases

of every description of Glassware for all purposes.

Porcelain Pomade (with Celluloid Caps) ¼, 1, 2 and 4 oz.

Smelling Salts.

Opal Octagon Pomade. 1 & 2-oz. with Screw Caps



The following are some of the lines we offer:

LIMES, tinted green, squat, 2-oz., packed about 15 gross cases, **12/-** gross net.
Free port London. About 200 gross stock.
LIMES, tinted green, 4-oz., packed about 8 gross cases, **18/-** gross net.
Free port London and Newcastle-on-Tyne. About 500 gross stock
MEDICALS, tinted green, 4-oz., plain, 1st quality, packed 5 gross cases, **21/-** gross net.
Free port. Stock 650 gross Hull. 100 gross London. 100 gross Liverpool.
MEDICALS, 4-oz., graduated, packed 6 gross cases, 2nd quality, **19/-** gross net
Free port London. Stock about 200 gross.
MEDICALS, tinted green, 6 oz., 2nd quality, plain, packed, 6 gross cases, **22/-** gross net.
Free port London. Stock 60 gross.
MEDICALS, tinted green, 2nd quality, 8-oz., grad., packed 3½ gross cases, **24/-** gross net.
Free port Hull. 150 gross stock.
MEDICALS, tinted green, 1st quality, 8-oz., grad., packed 5 gross cases **30/-** gross net.
Free port London. 150 gross stock.
TOBINS, 2½-oz., tinted green, packed **5/6** gross cases, **20/-** gross net.
Free port, stock 200 gross Hull and 200 gross London.
VIALS, tinted green, ½-oz., packed about 28¾ gross cases **9/6** gross net.
Free port Glasgow, about 150 gross stock.
VIALS, tinted green, 1-oz., packed 17½-19⅓ gross cases, **11/-** gross net.
Free port Hull, Glasgow, Liverpool and Leith, about 700 gross stock in all.
VIALS, tinted green, 6 drams, packed 13/23 gross cases, **10/6** gross net.
Free port Leith, Hull, and Glasgow, about 1,000 gross stock in all.
VIALS, tinted green, 2-oz., packed 8/11 gross cases. **12/-** gross net.
Free port Leith, Hull, Glasgow and Liverpool. About 1,000 gross stock in all.
MEDICALS, 2-oz., tinted green, packed about 15 gross cases, **19/-** gross net.
Free port Leith. 9 cases stock.

WHOLESALE ONLY.

NO RETAIL FIRMS SUPPLIED.

JULES LANG & SON.

CHARLTON WORKS:
Charlton Place, Islington, London, N. 1.

Telephones: North 2770-2 (three lines). *Telegrams:* "Assorted, Phone, London."
Please mention this Paper when sending us your inquiries.

BAISS BROTHERS

& COMPANY, LTD.

Established 1833.

SOLID & LIQUID

EXTRACTS

All official Extracts are prepared by us in strict conformity with the British Pharmacopœia.

BAISS' EXTRACTS are the outcome of ninety years' manufacturing experience.

This Season's

GREEN EXTRACTS

of **BELLADONNA** and **HENBANE** are now ready, and samples and prices are at the disposal of wholesale buyers.

Price Lists of Drugs, Pharmaceutical Preparations, &c., in various languages.

BAISS BROTHERS

AND COMPANY, LTD.

Wholesale & Export Druggists, Manufacturing Chemists & Makers of Surgical Instruments.

Contractors to His Majesty's Government; the Crown Agents for the Colonies; various Foreign Governments; and the principal Hospitals and Institutions at Home and Abroad.

Grange Works, 174, 175, 176 GRANGE ROAD, BERMONDSEY, LONDON, S.E.1

CARDBOARD BOXES

ALL VARIETIES.

MADE-UP & COLLAPSIBLE.

Plain, Printed & Lithographed.

ARTHUR CLEMSON

(Proprietor: Harold A. Clemson)

KENSINGTON WORKS,
DERBY.

ESTABLISHED 1878.

Telephone No.: 130 Derby. Telegraphic Address: "Boxes Derby."

What Manchester thinks to-day!

"I want this shop to become associated "consciously and subconsciously in the "minds of the people hereabouts with "'Sanatogen.' When they read of, see, "or hear of 'Sanatogen' I want them to "think of this establishment. I want "the doctors who call to be reminded "every day of 'Sanatogen.' I want the "people waiting for medicines to take "time-exposure mental photographs of "'Sanatogen.' In short, *I* want to have "the business in 'Sanatogen' for this "district."

The above is extracted from a letter sent to us recently by a leading Manchester pharmacist.

We publish it with his permission as a typical instance of the keen and friendly co-operation which many of our friends in the Trade are giving us, and which we desire most gratefully to acknowledge.

GENATOSAN LTD. (British Purchasers of the Sanatogen Co.)

12 Chenies Street, London, W.C.1. (Chairman: The Viscountess Rhondda.)

A REVOLUTION
IN CAPPING

No more fiddling with skins, paper caps and expensive capping materials

CARMA

disposes of them all. Irrespective of size, CARMA Capping Solution will cap any bottle, practically without labour. At least a thousand an hour can be done by this method.

CARMA is a solution into which the bottle is dipped and a cap immediately formed, hermetically sealing the bottle.

Price 40/- per gallon

Cash with order.

THE CARMA CO., 1 Steward Street, E.1.

For Developing Holiday Photographs

Your photographic customers will want

'RYTOL'

(Trade Mark)

(TRADE MARK 'TABLOID' BRAND 'RYTOL' TRADE MARK)

UNIVERSAL DEVELOPER

It develops all plates, films, bromide and gaslight papers and lantern slides with equally good results.

TRADE MARK 'TABLOID' BRAND 'RYTOL' TRADE MARK is easier to sell a second time than any other developer and never fails to give satisfaction to your customers.

Reduced Facsimile

Display it now and secure your share of the sales of this popular product.

Issued in cartons at 24/- per doz. (subject)

BURROUGHS WELLCOME & CO., LONDON

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TWO LINES THAT SELL THEMSELVES!

COCOANUT OIL SHAMPOO, Liquid 4 oz. 15/- doz.; Retail 2/-
2 oz. 10/- ,, ,, 1/3

COCOANUT OIL SHAMPOO POWDER, 30/- gross; Retail 4½d. Packet.

Are YOU having your share of the Trade?

Arthur H. Cox & Co. Ltd. Manufacturing Chemists Est 1839 Brighton

The *Lancet* describes it as "Mr. Benger's admirable preparation."

FOOD FOR INFANTS

BENGER'S

GOLD MEDAL AWARDED HEALTH EXHIBITION, LONDON.

Wholesale of all Wholesale Houses and Shippers or from the Manufacturers

BENGER'S FOOD LTD., Otter Works, MANCHESTER, Eng.

Branch Offices at: 117, Pitt St., Sydney, Australia; 90, Beekman St., New York, U.S.A.
Canadian Agents: The National Drug and Chemical Co., Ltd., Montreal and Branches.

SHOWCARDS AND HANDBILLS ON APPLICATION.

The *British Medical Journal* says: "Benger's Food has by its excellence established a reputation of its own."

INVALIDS AND THE AGED.

46

"SHOW SIX"
ON A POSTCARD
& SENT ON TO US

will mean: "I want 6 dozen 'Zepto' Pencils on your extra special Window Show Terms as quickly as I can get them, along with a 'Mons Man' Window Display."
The price is still 5/3 per dozen, and 'Zepto' is still advertised at 9d. P.A.T.A. You will find that a Window Show parcel on our special terms nets 100% on cost.

THOS. CHRISTY & CO., 4/12 Old Swan Lane, London, E.C. 4.

SURELY NO SIMPLER WAY OF ORDERING COULD BE DEVISED. IT DOES SAVE YOUR TIME THESE BUSY DAYS.

THE CHEMIST AND DRUGGIST

A Weekly Journal of Pharmacy and of the Chemical and Drug Trades

THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists and Druggists' Society of Ireland, and of many Chemists' Societies in the Overseas Dominions.

Subscription Rates. TWENTY SHILLINGS a year payable in advance to any part of the world, including a copy of *The Chemist and Druggist Diary*. Subscriptions may begin with the first issue of any month. Single Copy 9*d*. post free; *Diary*, 5*s*. post free. Postal orders and cheques should be crossed "Bank of Liverpool and Martin's Ltd."

Prix de l'abonnement annuel: le journal une fois par semaine, et l'agenda une fois par an, 20*s*., franco.

Precio de suscripción anual: el periódico una vez por semana, y el agenda una vez por año 20ch., franco.

Terms for Advertising may be obtained on application to the Publisher

HEAD OFFICE: 42 CANNON STREET, LONDON, E.C. 4.

Telegrams: "Chemicus, Cannon, London." Telephone: Central 3617 (three lines).

BRANCH OFFICES: MELBOURNE AND SYDNEY, AUSTRALIA.

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Known, Admitted, and Approved Remedies.

Following the practice which we started some years ago we propose to reserve space in the forthcoming issue of *The Chemist and Druggist Diary*, 1921, for the registration of formulas for "known, admitted, and approved remedies." Under the Medicine-Stamp Act, 1812, such medicines, when sold by chemists, are exempt from medicine-stamp duty so long as the formulas are contained in recognised works of reference. A clear indication must also be given on the label of the medicine to the published formula as evidence that the medicine is of the kind to which the exemption refers. *The Chemist and Druggist Diary* was the first book of reference recognised by the Board of Customs and Excise, after the "British Pharmacopœia," and the *Diary*, being published periodically, affords an exceptional opportunity for chemists to add any fresh formulas for medicines coming within the definition of "known, admitted, and approved remedies." Chemists who desire to take advantage of this arrangement should forward true copies of the formulas with the titles and directions for use so that we can include these in the *Diary*. We shall attach the correct reference numbers to the formulas when they are published. The formulas, which must be written on one side of the paper only, should be sent as promptly as possible within the next few weeks addressed to the Editor, *C. & D.*, 42 Cannon Street, London, E.C. 4.

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Export of Opium

The "London Gazette" (August 24) publishes the following notice regarding the export of opium:

Dangerous Drugs Act, 1920.

In pursuance of Section 1 of the Rules Publication Act, 1893, notice is hereby given that the Secretary of State for the Home Department proposes, at the expiration of forty days from the publication of this notice, to make the following Regulation:

Each package containing raw opium for exportation otherwise than by parcel post, shall have marked upon one side and upon the top, by branding, stencilling or painting, in conspicuous and indelible block lettering, at least two inches in height, the words "RAW OPIUM. NET WEIGHT," and the number of pounds of net weight, the whole enclosed by a rectangular border at least one half of an inch in width.

Each package containing raw opium for exportation by parcel post shall have marked upon it in conspicuous and indelible block lettering the words "RAW OPIUM. NET WEIGHT," and the number of pounds of net weight, the whole enclosed by a rectangular border.

The marking shall be on the package itself and not on a label, ticket, or other thing attached thereto. No words, letters, or figures except those prescribed shall be placed within the rectangular border.

Copies of the draft of the proposed Regulation may be obtained from the Home Office, Whitehall, S.W. 1.

The Secretary of State also gives notice, that in pursuance of Section 2 of the Rules Publication Act, 1893, he has certified that on account of urgency the foregoing Regulation should come into immediate operation, and has directed that it shall come into operation forthwith as a provisional Rule.

Post Office Notices.

The increase in the charges for inland telegrams is to come into force on September 1. A notice issued by the Postmaster-General states that:

The minimum charge for the transmission and delivery of an inland telegram of twelve words or under, including the address, will be raised from 9*d*. to 1*s*., and each additional word beyond twelve will cost 1*d*. Telegrams handed in on Sunday, Good Friday, or Christmas Day will be charged 6*d*. extra. The charge for a night telegraph letter will be 1*s*. for the first thirty-six words and 1*d*. for every three words over thirty-six.

The porterage on telegrams delivered outside the free delivery area will be increased from 3*d*. to 6*d*. a mile, or part of a mile.

A reply-paid telegram of twelve words will cost 2*s*., and vouchers issued before September 1 will be surcharged 3*d*. if tendered on or after that date.

The charge for a multiple telegram to two or more addresses in the same town will be calculated at the new rate, with an additional fee of 4*d*. for each copy beyond the first. The charges for redirection, retransmission, repetition, and cancellation of telegrams will also be proportionately increased.

A registered abbreviated telegraph address will cost 2*l*. a year instead of 1*l*. 1*s*., and the charges for recording instructions for the official redirection of telegrams will be 1*s*. for one week, 2*s*. 6*d*. for one month, and 1*l*. 1*s*. for a year.

The Postmaster-General also gives notice that on and after September 1 the rate of postage on publications registered for transmission at the inland newspaper rate will be 1*d*. for every copy not exceeding 6 oz. in weight, with a further charge of one halfpenny for every additional 6 oz. or fraction of 6 oz. up to the maximum weight of 2 lb.

Contracts.

The following tenders have been notified:

Pembrokeshire Education Committee.—Mr. B. Pugh Davies, chemist and druggist, Haverfordwest, spectacles to school-children.

Admiralty.—*Bovril*.—Bovril, Ltd. *Tooth-brushes*.—R. Addis & Son; Coate & Co.; G. B. Kent & Sons, Ltd.

C C

Index Folio 1205

Lard Substitute.—Globe Refining Co., Ltd. *Linseed Oil.*—Dixon & Cardus; F. F. Fox & Co.; Price's Patent Candle Co., Ltd.; J. L. Seaton & Co.

War Office.—*Ammonia Liquor.*—Gas Light & Coke Co., Ltd. *Bleaching-powder.*—The United Alkali Co., Ltd. *Disinfectant.*—Jeyes' Sanitary Compounds Co., Ltd.; The "Sanitas" Co., Ltd. *Electric Cells.*—Siemens Bros. & Co., Ltd. *Methylated Spirit.*—Bellingham & Co., Ltd.; S. Bowley & Sons, Ltd. *Linseed Oil.*—Younghusband, Barnes & Co. *Soap.*—John Knight & Co., Ltd. *Surgical Instruments.*—General Surgical Co., Ltd.; Henry Lewis; S. Maw, Son & Sons, Ltd.

India Office.—*Aconite-root.*—C. R. Harker, Stagg & Morgan, Ltd. *Bismuth Carbonate.*—May & Baker, Ltd. *Bleaching-powder.*—The United Alkali Co., Ltd. *Lint.*—Vernon & Co., Ltd. *Naphthalene.*—Gas Light & Coke Co., Ltd. *Cod-liver Oil.*—Price's Patent Candle Co., Ltd. *Paraffin, Soft.*—Pilchers, Ltd.; Price's Patent Candle Co., Ltd. *Sublimed Sulphur.*—Burgoyne, Burbidges & Co., Ltd.

Crown Agents for the Colonies.—*Dental Outfits.*—Dental Manufacturing Co., Ltd. *Drugs.*—Burgoyne, Burbidges & Co., Ltd. *Gauze.*—Robinson & Sons, Ltd. *Linseed Oil.*—J. L. Seaton & Co. *Methylated Spirit.*—J. Burrough, Ltd. *Tarco.*—R. S. Clare & Co., Ltd.

General Prisons Board for Ireland.—*Soap.*—John Barrington & Sons, Ltd.; James Crean & Sons, Ltd.

Poisonings.

The following cases of fatal poisoning have been recorded since our last report:

At Finsbury Park, London, N., a man named Middleburgh hanged himself after swallowing a quantity of oxalic acid.

At Leamington Albert Edward Collier, a London lamplighter, was found dead in a garden with a bottle of carbolic acid lying beside him.

An inquest was held at Canterbury, on August 23, on the body of a cowman named Beach, who had used for drinking purposes a can which had previously contained weed-killer. Arsenic was found in his body, and a verdict of "Death from misadventure" was returned.

At Sheffield, recently, a verdict of "Accidental death by poisoning" was recorded at an inquest on the body of a man named Small, who drank from a bottle containing Lysol, apparently mistaking it for brandy. The brandy-bottle and the bottle of Lysol were produced, showing that, although of the same size, they were not alike in shape or colour, and that the contents differed widely in taste and smell.

At the resumed inquest at Blackburn, on August 19, on a farmer's daughter who died after swallowing some of the liquid from the centre of a golf-ball (*C. & D.*, August 21, p. 76), the analyst's report showed that the core of the ball had contained a mixture of sodium silicate jelly. Medical evidence was that the girl died from ulceration of the air passages due to swallowing and inhaling liquid in the core of the ball. A verdict was returned accordingly.

House-organs.

The following are among the house-organs that have reached us during the month:

"The Triangle" (Prescott & Co., Hulme, Manchester) contains another instalment of the school-life serial and a short story. The compilers of the brochure confess that they have been disappointed with the answers to their puzzles. A map and a list of the tram routes are printed at the end of the magazine.

"Camera House Journal" (W. Butcher & Sons, Ltd., London, E.C. 4) suggests a number of novel ways of maintaining the amateur's interest in photography throughout the year, and explains how Messrs. Butcher propose to co-operate with the retailer so as to ensure that every summer customer becomes a winter customer. The inset, "The Fun of Photography," of which a further edition has been printed and is supplied free, contains a number of hints for those who are thinking of buying a camera.

Public Institution News.

Miss G. Martin has been appointed part-time dispenser for a period of six weeks by the Edmonton Guardians. The salary is 1*l.* 11*s.* 6*d.* per week, with meals.

Edmonton Guardians, following the lead of similar bodies in London and district, have decided to rename their infirmary. In future it will be styled "Edmonton Municipal Hospital." A scheme of co-operation with the local health authorities has been inaugurated, whereby private cases (chiefly maternity) are to be received as in-patients, and repayment made by the patient or the health authority, according to circumstances.

Alleged Fraud by Chemist.

Phineas Keats, chemist and druggist, Balsall Heath, Birmingham, who was wanted in connection with charges of obtaining sums of money amounting to more than 70,000*l.* by false pretences (*C. & D.*, August 21, p. 66), was arrested on August 21 at Looe. He had arrived at the little seaside resort a week previously in his motor-car and stayed in private lodgings. Keats admitted his identity at once when questioned.

On being charged at Birmingham on August 24 with obtaining by false pretences sums amounting to 5,200*l.*, Keats was remanded for eight days, bail being refused. Mr. Cohen (prosecuting) stated that amounts totalling 70,000*l.* had been mentioned in connection with the case, but apart from an additional item of 150*l.* it was not proposed to bring any fresh charge. Mr. Hatwell, who appeared for the defence, when applying for bail stated that Keats had never attempted to conceal his identity, although he had stayed at hotels in Newbury and Oxford on his way to Cornwall. See also page 51.

Profiteering Act Case.

At a sitting of the Llandrindod Wells Profiteering Committee, on August 16, Mr. W. S. Bound, chemist and druggist, was the respondent in a complaint of having sold half a pint of methylated spirit for 1*s.* 3*d.* The complainant stated that she had bought the same quantity of spirit elsewhere for 1*s.* For the defence prices were quoted from various retail price-lists, on one of which Mr. Bound has based his charge. The Committee, after deliberation in private, ordered a refund of 2*d.*

Liverpool.

Grocers are suffering from juvenile pests, who procure parcels on the false pretence that they have been sent for the goods by well-known residents. A word to the wise . . .

Mr. Harold Wyatt, Ph.C., Bootle, has received many congratulations on his enrolment as a J.P. (*C. & D.*, August 21, p. 66). One telegram read: "All cheerful pharmacists rejoice."

It is proposed to entertain Mr. George Whitfield, Ph.C., of Scarborough, to dinner at the Exchange Station Hotel, Liverpool, on September 8, the eve of his departure for the United States and Canada.

Mr. W. H. Saunders (Ayrton, Saunders & Co., Ltd.) is sending as a souvenir to visitors to the British Pharmaceutical Conference copies of his address, "The Making of Liverpool," before the Liverpool Philomathic Society.

A representative of the *C. & D.* has called on the chairman of Evans Sons Lescher & Webb, Ltd., to inquire as to the truth or otherwise of the statement in a section of the daily Press that the United Drug Co. is seeking to absorb Evans's. Mr. William P. Evans authorises the *C. & D.* to state that there is no truth in the report, his company not having been approached by the U.D.C. He knew nothing as to the origin of the story.

Mr. F. W. Moore, chemist and druggist, sundries representative of Evans Sons Lescher & Webb, Ltd., is an ardent campanologist long associated with St. Luke's Church, Liverpool, where the annual service for medical men is held. During his recent holiday at Keswick he accepted the complimentary invitation to ring for morning and evening service at St. Kentigern's, Crosthwaite, which dates from the sixth century. On Saturday evenings, for many years, Mr. Moore has given his services to the savings bank at the Liverpool Parish Church Schools.

Birmingham.

The honey season is reported to be one of the poorest on record.

The School of Commerce lectures at the university commence on September 20.

The recent weather is mainly responsible for the increased demand for weed-killers and insecticides.

A large number of advertisements for girls between the ages of fifteen and sixteen years have appeared in the local Press of late.

The silver and bronze medals of the local pharmaceutical association are good examples of what Birmingham can produce in that direction.

The municipal authorities have issued bills warning traders against the employment of young folk in their businesses.

Some excellent specimens of *Conium Maculatum* are to be seen in the neighbourhood. A good botanical description of it was given by a writer in the "Mail" recently.

Mr. Wilfred Southall and his colleagues of the Citizens' Committee have obtained the use of the Drill Hall, Nineveh Road, for the accommodation of those rendered homeless in the Hockley disaster.

It is difficult to understand, writes a correspondent, why Birmingham has such a reputation for pilfering, unless it is to justify the following quaint proverb: Sutton for mutton, Tamworth for beeves, Walsall for knock-knees, Brummagem for thieves.

Phineas Keats, or Katz, known as Philip Keats, whose disappearance caused such a sensation in Birmingham (*C. & D.*, August 21, p. 66), was born and served his apprenticeship in this country, ultimately passing the Qualifying examination in 1914. The business at the corner of Mary Street and Edward Road, Balsall Heath, which he acquired from Mr. Fred Barlow, chemist and druggist, was formerly carried on by the late Mr. T. Beech. After conducting it as a retail business Keats began purchasing considerable quantities of oils and colours, eventually starting a wholesale business in the adjoining premises. Among his purchases were large quantities of goods offered by the Army and Navy Disposals Board. An account of his arrest and of the legal proceedings appears on another page of this issue.

Phineas Keats.

Sheffield.

Mr. G. F. Jones, chemist and druggist, who has been awarded the Society's bronze medal for practical chemistry, is on the staff of G. T. W. Newsholme, Ltd.

On all sides there is a general complaint about the falling off in business. This is partly accounted for by the number of customers who are away at the seaside.

Miscellaneous.

Poison-licence Application.—Lee & Son, seedsmen, Market Place, St. Albans, have applied for a licence to sell horticultural poisons.

Wine Licence Transferred.—At Hastings, on August 17, the medicated-wine licence at 22 Robertson Street, was transferred from Mr. H. G. Sletcher, chemist and druggist, to Mr. W. J. Thomson, chemist and druggist.

Employers and Ex-Service Men.—The appointments department of the Ministry of Labour is receiving numerous applications for situations from unqualified ex-Service men. Employers are requested to give preference to these applicants.

London Chemists' Golfing Society.—The August meeting, held on the North Surrey course, for prizes presented by Mr. Laurie Cohen, resulted as follows:

S. E. Tomson	95−18=77	L. G. Hammer	99−13=86
W. Duncan	97−18=79	M. W. Carmichael	98− 9=89
H. W. Bartlett	92− 6=86		

Prescriptions from Malaria Clinics.—Prescriptions on which a two months' supply of medicine has been ordered should be retained until the whole quantity has been supplied and marked accordingly, otherwise only a single dispensing-fee may be allowed. Prescriptions may not be used for anything but drugs. Proprietary articles, dressings, and appliances are not allowed.

Attempted Suicide.—Mr. H. G. Mellish, a Guernsey chemist, is stated to have made a determined attempt to commit suicide, while on a visit to Jersey recently, by dropping from a rock, fully dressed, into the sea. He struggled violently with his would-be rescuers, who eventually succeeded in getting him to the hospital at St. Helier, where he gradually recovered. Mr. Mellish is over sixty years of age, and is said to be epileptic.

In the Courts.—At Marylebone Police Court, London, on August 21, a man named Blain, described as a master builder, was remanded on a charge of attempting to commit suicide by taking spirit of salt. It was stated in the evidence that the accused had drunk a mouthful of the acid when a constable appeared and administered an emetic of whitewash and water.—At Dudley Police Court, on August 18, a woman was charged with attempting to commit suicide by drinking corn-paint.

Coventry Chemists' Outing.—The Coventry Association of Pharmacists spent an enjoyable time at Stratford-on-Avon on August 12. The journey was made by motor-chars-à-bancs by a party numbering about seventy. On arriving at Stratford-on-Avon they were met by Dr. and Mrs. Spencer and friends, who conducted them to the various places of interest. Tea was served at the Red Horse Hotel. Afterwards the party was photographed, and a trip on the river Avon in steam-launches followed. Supper was served at the hotel before returning to Coventry.

Burglary.—Mr. F. E. Burdett, chemist and druggist, Bradford, President of the local Pharmacists' Association, and director of M. Rogerson & Son, Ltd., chemists, Darley Street, was the victim of burglary at the shop premises on August 20. The thieves ransacked desks and drawers, and attempted without success to break open the safe. The haul only amounted to a few shillings.

Irish News.

Brevities.

The Ulster Retail Drug-trade Association desire to make it known that the port of Belfast is not closed, as reported, and that wholesale drug-houses need have no objection in sending goods for transit.

The boycott of wholesale merchants is affecting the drug-trade, but not to the same degree as it does other trades. Business with Belfast houses is suspended in some towns, the travellers being withdrawn.

Dr. Lyle, medical officer, Newtown-Stewart, reported to the Strabane Guardians that the medicine contractor had failed to supply the medicines requisitioned. Mr. Ingram said that the Board should give the medical officers power to order the medicines elsewhere and have them charged to the contractor's account. An order to this effect was made.

At the recent medical examinations held in Queen's University, Belfast, Mr. Joseph Reynolds, Ph.C., was successful in obtaining the M.B., B.Ch., and B.A.O. degrees. Dr. Reynolds served his apprenticeship with Davidson & Hardy, Belfast, and after qualifying took up medical studies. He has been lecturer for three years in Pharmacy and Materia Medica in Mr. Templeton's School of Chemistry, Belfast.

Scottish News.

Brevities.

At Maryhill, Glasgow, a woman named McInally died recently from drinking a solution of ammonia in mistake for lemonade.

At Dumbarton, on August 24, an insurance agent named Paul accidentally drank a quantity of solution of ammonia and subsequently died in the Cottage Hospital.

Mr. Campbell, chemist and druggist, Lockerbie, gave, as a prize, a cask of Highland sheep-dip to the exhibitor having the largest entry in sheep classes at the recently-held Lockerbie Agricultural Society's show.

Provost John Raffan, J.P., chemist and druggist, Stirling, is to deliver an address entitled "Towards the Ideal City" to the members of the Sanitary Association of Scotland at their forthcoming annual Congress at Dumfries.

Mr. P. G. Thomson, who is the son of Mr. R. Thomson, chemist and druggist, Elgin, has established a new amateur record for the Lossiemouth Golf Course with the score of 73. Mr. Thomson is one of Scotland's best-known amateur golfers.

The Royal Burgh of Linlithgow recently refused to allow a private trader to make use of the burgh arms on certain toilet articles, and now the Perth magistrates are claiming that the city's coat-of-arms is the "private and exclusive property of the magistrates." The handles of tooth-brushes are included in the articles which come under the ban.

Edinburgh.

Monday's rent-strike, when local housewives were asked to refrain from making purchases, did not gain many adherents, the day's business being much as usual.

A scheme for the extermination of rats is to be entered upon by the East Lothian Local Authority, and Mr. Arthur Rickards, the newly appointed inspector, has been asked to prepare a general report. Mr. Rickards states that "gas" is by far the most certain killing agent.

Mr. A. Ireland, an apprentice with Raimes, Clark & Co., Ltd., Edinburgh, made a creditable appearance at the Olympic Boxing Championship at Antwerp. He defeated in succession champions from Denmark, Switzerland, and the United States of America, but was defeated in the final round by a Canadian, after an extra round was required to decide the winner.

Fife.

Among the enrolments in the Commission of the Peace for Fife are included the following chemists and druggists: William Tod Louden, Dunfermline; Ex-Bailie John Peebles, Kirkcaldy; Henry Fife Scott, Inverkeithing; Wm. Smart, Buckhaven. Mr. Peebles is now making good recovery from a recent illness.

Mr. W. Sommerville, chemist and druggist, who was for some time in business in Kinglassie, Fife, and was recently with the Dunfermline Co-operative Society (Drug Department), has been appointed manager of the Kilwinning Co-operative Society's drug department.

A chemist, whose National Insurance account for an outlying district in Fifeshire amounted to four shillings and fivepence halfpenny—for a period extending over several months—received a cheque recently for four shillings and fivepence. So he altered the cheque receipt to make it read, "in part payment"—"one halfpenny still due!"

A Counterblast to Tonics.—Speaking at the Simple Life Exhibition held recently in London, Dr. Bertrand Allison said that nothing in medicine was more pernicious than the wide use of tonics. Dr. Allison declared that nobody could pretend that we were healthier to-day than, say, fifty years ago. He thought it was very doubtful whether at any period during civilisation any races had been so unhealthy as they are to-day.

French News.

(From the "C. & D." Paris Correspondent.)

MM. Guérin and Goris note that coumarin is present in the *Melittis Melissophyllum* (L.), a common plant in the woods around Paris.

In the Bulletin of the Therapeutical Society, M. Henri Leclerc comments on Dr. Louis Renon's recommendation of Passiflora for the treatment of insomnia, more particularly after the "grippe" (influenza). This plant has been left almost entirely to the homœopathics as a neurasthenic remedy, but Dr. Renon recommends a one-fifth tincture in doses of fifteen drops as valuable in cases where veronal, chloral, trional, and opiated medicaments are undesirable. The dose is thirty to fifty drops at bed-time, and the tincture should be made from flowering plants gathered fresh in May.

Absinthe has been for some time a forbidden drink in France, though beverages bearing a strong family resemblance to the banished *apéritif* are to be found in many cafés. According to the "Cri de Paris," the enemies of "substitution" explain to their family doctor the profound digestive troubles brought about by the stern decree, and he writes out a prescription for a "Potion to be taken twice daily," containing Artemisia absinthium Linnei, sugar, and other necessary ingredients, with the indication, "Stir well before taking," and the pharmacist dispenses it. (It is very interesting. But we were not aware before that French prescriptions were written in Latin!)

Dr. Jean Roucaud's Thesis on "The Plague at Toulouse in the Early Part of the Seventeenth Century" contains some references to the pharmacy of the epoch. Repeated outbreaks resulted in the formation of regular lazarets and services; there were "plague" priests, doctors, and apothecaries, grave-diggers, disinfectors, and "perfumers," the two latter presumably synonyms. The triumphs of polypharmacy, like theriaca and mithridate, were especially popular. Absinthe, gentian, the various labiatæ were the vegetable drugs preferred, and mercury, arsenic, antimony, sulphur, etc., among minerals; also hartshorn, powdered frogs, scorpion oil, and other curiosities of the ancient Pharmacopœias. An apothecary of Lunel and various dukes, doctors, etc., offered proprietary remedies. The plague contract for drugs was an important one; Fernat, master apothecary, was paid 14,000 livres for 1628-30, and Virazel, another apothecary, 7,800 livres in 1652-3. Disinfection processes were practical. Valueless or badly soiled objects were burnt, furniture and floors washed, and premises fumigated, usually with sulphur.

The Advancement of Science.—The forty-fourth Congress of the French Association for the Advancement of Science was held recently at Strasbourg. The inaugural meeting took place in the old Parliament House (now the Conservatory of Music), the chairman being Professor Albert Calmette, sub-director of the Pasteur Institute, supported by M. Alapetite (Commissary-General of the Republic of Alsace-Lorraine), and the Mayor of Strasbourg. M. Jadin, Dean of the Faculty of Pharmacy, was also present. The foreign *savants* included representatives of the Universities of Brussels, Ghent, Liege, Geneva, Madrid, and London (Messrs. Langley and Halliburton). M. Alapetite paid tribute to Dr. Calmette, "founder of the Pasteur Institute of Lille, where he was a veritable apostle" of scientific progress. Professor Weiss, Dean of the Faculty of Medicine, commenting on the German University of Strasbourg, said its completeness had been exaggerated. A vast scheme for putting all up to date had, it is true, been drawn up, but the war had prevented its being carried out, and much remained to be done. Professor Perrot, of the Paris Faculty of Pharmacy, read the report on the work of the Association since the last meeting.—Professor A. Sartory, of Strasbourg, gave an interesting paper on the onychogriphoses and onychomycoses, affections of the nails which hinder their normal growth. These are caused by the *Aspergillus scopulariopsis* and allied fungi. The best treatment is to scrape the nails and apply tincture of iodine.

South African News.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is supplied weekly to members of all the Chemists' Societies in South Africa.

The Union.

Drug Imports in May.—The imports of drugs, chemicals, and apothecaries' wares into the Union during May amounted in value to 131,440*l.*, against 74,468*l.* in May 1919, and the total for five months is 539,897*l.*, against 528,636*l.* for the corresponding period of 1919. The imports of medicinal preparations for the five months were valued at 130,190*l.*, against 92,393*l.*, and apothecaries' wares at 71,150*l.*, against 39,397*l.*

Orange Free State.

Strychnine Poisoning.—An English nurse named Dora Wynne died from strychnine poisoning, self-administered, at Orangezicht, South Africa. The analyst's report was to the effect that the stomach contained 4.56 grains of the poison.

Examiners Appointed.—At a meeting of the O.F.S. Medical and Pharmacy Council held on July 6, Messrs. Francis Carter and James Reid were appointed to act as examiners in dispensing, practical pharmacy, and materia medica at the ensuing examination to be held in August.

The Union Pharmacy Bill.—The position of the Union Pharmacy Bill is the subject of a lengthy letter in the Bloemfontein "Friend," by Mr. Francis Carter, pharmacist, Bloemfontein, who writes :

Recently the Minister of Health addressed an urgent communication to each Pharmacy Board or Council in the Union, stating that as it was impossible to state the time when the draft Medical and Pharmacy Bill would be again considered, he proposed to hold a conference in Cape Town of delegates from each Pharmacy Board or Council to consider the questions of reciprocity between the various existing Boards and Council, and also the formation of a Joint Examining Board and other questions of pharmaceutical interest. A day or two later the date of the conference was fixed—viz., July 15. The Orange Free State Council immediately arranged for two of its pharmaceutical members to attend, as it was fully in agreement with the steps proposed. Soon after the date was fixed a further communication was received from the Ministry of Health, stating that the Transvaal Pharmacy Board was not satisfied with the number of delegates allotted to it; that the Board considered that each Pharmacy Board or Council should be permitted to send 50 per cent. of its membership as delegates, and claimed to send at least three members and the Secretary of the Board to represent it on the ground that any agreement come to by a less number of delegates might not be accepted by the majority of that Board, and that, therefore, the proposed conference might prove futile. The Minister of Health was not willing to allow the representation desired by the Transvaal Board, and promptly cancelled the conference. It will be seen that the Pharmacy Board of the Transvaal Province has been a stumbling-block, and that its action will probably delay the settlement of the first two vitally important points for some years.

The Orange Free State Council was so dissatisfied with the action of the Transvaal Pharmacy Board that a resolution was proposed that the respective Boards of the Cape and Natal Provinces be approached to join the Orange Free State in a conference to consider the two points of reciprocity and joint examinations. As this seemed to some of the members to be too severe and to savour of provincial reprisals, it was not carried, but a further resolution instructing the Registrar to approach the Minister of Health again, requesting him to call a conference to consider these two points only, was unanimously passed. The decision of the Minister is being anxiously awaited.

The O.F.S. Council communicated with the Pharmacy Boards of the Transvaal, Cape Province, and Natal some time ago as to the terms on which reciprocity might be arranged, but has only received a favourable reply, so far, from Natal. That Province agrees to accept the Orange Free State certificates, and it only remains for the equalising of the syllabuses of examination of the two Provinces to establish reciprocity. The Pharmaceutical Society of the Orange Free State passed a resolution some months ago that it was desirable to dissociate the medical and pharmaceutical portions of the proposed Bill, and that a Pharmacy Bill, pure and simple, should be introduced. This resolution was forwarded to each of the other Pharmaceutical Societies. Letters were drafted to each and every M.L.A. representing the Orange Free State, when it was thought that the Bill was about to be introduced, but in view of the withholding of the Bill from consideration the letters were held over.

Mr. Carter trusts that when the next conference is called (if ever) the Transvaal Pharmacy Board may be more moderate in its demands, and that a working agreement between the four provinces may soon be an established fact.

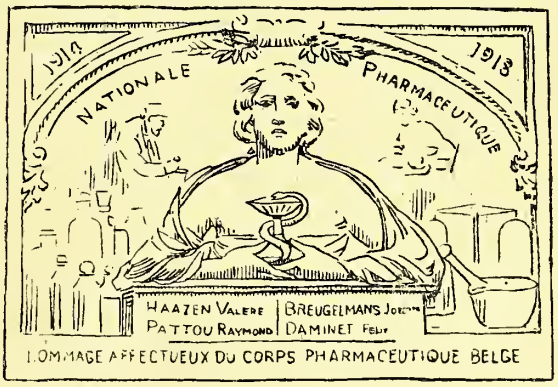
Pharmaceutical Society of Cape Province.

A general meeting was held in the Society's rooms, Cape Town, on July 15. The President (Mr. T. J. Hughes) was in the chair, and there were present, among others, Messrs. Corrigan, Froembling, Gardner, Dowling, Clancy, Mohr, and the honorary secretary, Mr. J. Slean. The minutes of the previous general meeting were read and passed. A letter was read from the police authorities with reference to a complaint made against a chemist by the Society. The letter stated that the said chemist had been tried and convicted for contravening the Shop Hours Act, and had been fined on two occasions. A communication was received from the Natal Pharmaceutical Society wishing the Cape Society success in their efforts to deal with the question of the illegal practice of pharmacy by companies, and guaranteeing a contribution towards legal expenses. The question of price-cutting was brought up, and it was decided, on the motion of Dr. Froembling, to place the following on the agenda for next meeting : "The organisation of a Chemists' Retail Association in conjunction with the Pharmaceutical Society." Mr. G. Cowie was elected as a new member.

Colonial and Foreign News.

A Source of Alcohol.—The Société des Vins et Spiritueux has addressed an inquiry to the Greek Minister of National Economy regarding the occurrence of asphodelus plants in Greece, as it is proposed to use these as a source for the manufacture of alcohol.

Tribute to Belgian Pharmacists.—A demonstration of the high esteem in which MM. Haazen, Pattou, Daminet, and Breugelmans, the leaders of the Nationale Pharmaceutique of Belgium, are held by their Belgian *confrères* took place recently, when a memorial plate was unveiled in their honour. This plate, which is a work of art, is to



place on record the appreciation of Belgian pharmacists of the high sense of duty and patriotism shown by these gentlemen, and the great work they did for the profession during the German occupation. The memorial is to be placed in the meeting-room in the new headquarters of the Nationale Pharmaceutique in Brussels, and reproductions in silver were handed to each of the four gentlemen fêted as a souvenir.

Roumanian News.

Roumanian Medical Exhibition.—The director of the Roumanian Board of Health recently invited the representatives of foreign firms in Bucharest to a discussion, during which he proposed the establishment of a permanent medical exhibition in the capital, and invited them to supply one sample of each speciality manufactured by their firms. It may be mentioned that German firms have consented to supply the required samples of their products.

Roumanian Pharmacists Unite.—An appeal has been made by the "Liga Farmaciei Române" to all pharmacists in Roumania to join in the efforts made by the League to obtain improved pharmaceutical legislation in Roumania. The League demands improved conditions which will give to every qualified pharmacist a chance to become a proprietor soon after he qualifies. It demands also a better status for pharmacists in public institutions. The maximum hours of work for the pharmaceutical employés fixed by the League are from 8 a.m. to 8 p.m., with two hours off for lunch, two afternoons off a week, and Sunday duty every other week. The monthly salaries are as follow: Qualified pharmacists, 2,500 fr.; junior pharmacists, 2,200 fr.; students, 2,000 fr.; apprentices, second year, 300 fr. and full board; apprentices, first year, 150 fr. and full board.

The new Roumanian Pharmaceutical Journal "Farmacia Româna," published bimensually by Dr. A. Ionescu, pharmacist, Professor of Toxicology and Biochemistry at the University of Bucarest, and Dr. V. Vârgolici, pharmacist, Professor of Chemistry, contains in the present issue (the fourteenth number) an interesting article by Dr. D. Olaru on the supplement to the French Codex (1920). The author deplores the fact that the new supplement has left out such important drugs as ethyl morphine, emetine, colloidal silver, arsenobenzene preparations, etc. He welcomes the new standard of purity fixed for the different pharmaceutical products. From his experience he finds that the drugs and reagents at present on the French market are in a deplorable state of impurity, and, in his own words, "One must be satisfied if he gets his reagents only in a doubtful state of purity." He gives an account of the new chemicals and preparations introduced in the supplement.

Professor Dr. S. Minovici, in a speech given before the Roumanian Chemical Society, demonstrated that, at the present time, there is an opportunity for the formation of a national chemical industry in Roumania. The new united Roumania is now double the pre-war Roumania, both in territory and population. The Roumanian soil is very rich in minerals, coal, and petrol; and there is an abundance of textiles, medicinal plants, and vegetable oils. Professor Minovici strongly advises that more use should be made of the hydraulic power of the country, which is estimated at *circa* 1,700,000 h.p., and when properly employed will give an energy equal to 46,300 tons of coal per hour. Another great source of energy is found in Ardeal (Transylvania) at the natural spring of methane gas. The salt-mines are also a large national asset. Professor Minovici thinks that there should be no difficulty in raising the capital required for the formation of an up-to-date, well-organised chemical industry. The Roumanian imports in 1913 amounted to 600 million francs, 380 million to the Central Powers, 60 million to England, 40 million to France, 30 million to the United States, and 20 million to Italy. Of the 600 million francs, 14 million were for chemicals and pharmaceutical products, of which 9 million went to Germany.

Furor Brevis.—The expensive apparatus for recording carbon dioxide in a Midlands works had been faithfully continuing its duty for several days after the fires had been extinguished; but at length the manager, in a fit of temper, ordered it to be broken up. This typical instance of post-war impatience reminds one of the classic farmer and his barometer.

Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

Diazo-Reaction of Morphine.—On diazotation, morphine, and its salts, yields a dye, particularly when treated with diazobenzene-sulphonic acid in an alkaline medium ("Lautenschläger, Arch. Pharm."). The synthetic derivatives of morphine do not yield this dye, the composition of which is as yet unknown. On adding a 2-per-cent. solution of this acid to a solution of morphine rendered alkaline by the addition of bicarbonate of sodium, a red coloration is produced, the intensity of which is proportional to the amount of morphine present; the limit of sensitiveness is below 1 in 10,000.

Nux Vomica.—Nordström (Apoth. Zeit.) criticises the method prescribed by the Swedish Pharmacopœia of preparing extract of nux vomica from coarsely powdered seeds. He found that 5,000 gm. of nux vomica, with a content of 2.86 per cent. of alkaloids, representing a total of 142.5 gm. of total alkaloids, yielded 570 gm. of extract with a content of 16 per cent. of total alkaloids, but the total amount present is only 91.2 gm., so that no less than 51.3 gm. of alkaloids were lost in extraction. He recommends the use of finely powdered nux vomica for the preparation of extract and tincture of nux vomica.

Odorous Constituents of Apples.—Dr. F. B. Power and Mr. V. K. Chesnut recently communicated to the American Chemical Society the results of an investigation of the odorous constituents of apples. The paper, which was a contribution from the Phytochemical Laboratory, Bureau of Chemistry, United States Department of Agriculture, is thus summarised as follows:

1. The odorous constituents of apples have been found to consist essentially of the amyl esters of formic, acetic, and caproic acids, with a very small amount of the caprylic ester and a considerable proportion of acetaldehyde. In considering the relative amounts of the respective alcohol and acids it seems probable that the latter are also present to some extent in the free state.

2. It has been shown that acetaldehyde is a product of the vital activities of the fruit, and that it occurs in the exhalations of ripe apples. This observation is deemed of considerable biological importance, especially as it has hitherto been assumed that the lower aliphatic aldehydes are first formed during the process of steam distillation. It is, for example, quite probable that the exhalation of acetaldehyde may prove to be one of the factors involved in the production of so-called "apple-scald," an affection to which some apples are subject when stored without free circulation of air.

3. Aqueous distillate from fresh apple-parings has been found to contain, in addition to the above-mentioned substances, exceedingly small amounts of methyl and ethyl alcohols, and also a small amount of furfural. Inasmuch as the last compound is doubtless produced by chemical changes in the material during its distillation, it cannot be regarded as one of the odorous constituents of the apple.

4. The essential oil, as extracted by means of ether from a concentrated distillate of either ordinary apple-parings or those of the crab apple, is at ordinary temperatures a yellowish, somewhat viscid liquid, becoming much darker on keeping. When slightly cooled it forms a concrete mass, due to the separation of small acicular crystals, which consist of a paraffin hydrocarbon. It possesses in a high degree the characteristic, fragrant odour of fresh apples. Besides the esters mentioned, it has been found to contain, by specific tests, small amounts of acetaldehyde and furfural. The yield of oil from the parings of the Ben Davis apple was 0.0035 per cent., and that from the more odorous crab apple 0.0043 per cent., which corresponds to about 0.0007 and 0.0013 per cent. respectively of the entire ripe fruit.

5. Although amyl valerate is generally designated in chemical literature as "apple oil," it is quite certain that this compound has never been identified as a constituent of apples, and in the course of this investigation no evidence could be obtained of its presence. On the other hand, it has been shown that the characteristic, fragrant odour of ripe apples is due to a mixture of the previously enumerated substances, which may exist in varying proportions in the numerous varieties of the fruit, thus giving rise to slight differences of odour.

Is Tooth-paste a Medicine?

At Bow Street Police Court, London, on August 18, before Mr. Chester Jones, the American Drug Supply Co., Ltd., Northumberland Avenue, Charing Cross, were summoned under the Medicine Stamp Act for selling and exposing for sale "a certain preparation and composition to be used and applied as a medicine and medicament for the prevention of disorders and complaints incident to and affecting the human body—viz., Proteolytic tooth-paste—without having affixed to it a label provided by the Commissioners of Inland Revenue denoting that the duty had been paid."

Mr. Beattie supported the summons on behalf of the Inland Revenue authorities. Mr. G. F. L. Mortimer, K.C., and Mr. C. Paley Scott defended, and Mr. Terrell held a watching brief on behalf of the wholesale dealers.

Mr. Beattie said that the prosecution was in respect of a preparation belonging to a class which, for want of a better term, are called patent medicines. The question resolved itself purely into a question of law as to whether this was a preparation within the scope of the Act. The schedule to the Act gave a list of specific preparations which are liable to duty, followed by the words "and also all other pills, powders, lozenges, tinctures, etc., for the prevention, cure, or relief of any disorder or complaint incident to, or in any wise affecting the human body." If it could be shown that this tooth-paste is a chemical or medicinal preparation, and that it is held out to be beneficial in the prevention, cure, or relief of human ailments, then it is liable to stamp duty. The carton containing the paste describes it as a scientific dental preparation "remarkable for the quickness and thoroughness with which it removes dental mucic films, thereby preventing acidity of the mouth, decay, and pyorrhœa." In the submission of the prosecution, these words alone are sufficient to create liability. Inside the packet there was also a pamphlet, in which it was stated that the basis of the preparation was pepsin, and the polishing agent calcium phosphate, and holding out the paste to be beneficial in the prevention of disease.

The only witness called for the prosecution was Mr. Arthur William Baker, a Customs and Excise officer, who proved the purchase of an unstamped packet of the tooth-paste for 3*s*.

Addressing the magistrate for the defence, Mr. Mortimer contended that in order to succeed with their case the Inland Revenue authorities had to prove first that the paste is a medicine or a medicament; secondly, that it was for the prevention, cure, or relief of human ailments, and that it was advertised as such. Murray's dictionary defined "medicament" as a substance used in curative treatment; and the definition of medicine was "any substance or preparation used in the treatment of disease—a medicament." Both words, therefore, meant that the substance was curative of a disease. The magistrate observed that the words of the Act were "prevention, cure, or relief." Mr. Mortimer: Yes, but the Act first of all says that it must be a medicine. The Magistrate: Then it is a contradiction of terms, if Murray says it means something only to cure. Mr. Mortimer: I agree that I must take the two together. Counsel went on to refer to an appeal case decided in the Divisional Court ("Fincham *v.* Duclercq," 60 J.P., p. 276) with reference to pine-tar soap, which was advertised as a cure for eczema, ring-worm, coughs and colds, influenza, diphtheria, and other complaints. The case had been dismissed in the Police Court on the ground that there was no evidence of any offence having been committed against the Acts of 1802 or 1812. On appeal, the Divisional Court held that the justices were right, as it was a question of fact whether the soap was a medicine or not, and there was no evidence that it was. That case was very much on the same lines as the present one, because there it was specifically claimed that the soap actually cured a number of diseases. The Magistrate: *Prima facie*, no one would say that a soap and tooth-pastes are medicines, but they may be. Your case is that the fact that a vendor advertises them as curing disease does not make them medicines, and it is for the prosecution to produce some evidence that they are medicines. Mr. Mortimer: That is so. The only evidence here is the production of the article actually bought. No evidence has been given to show that this prevents disease. The Magistrate: A lot of these articles are advertised to do things which they do not do.

Mr. Mortimer went on to say that nowhere upon the carton or in the pamphlet was any claim made that the tooth-paste had any direct action upon any disease. What was claimed was that the application of the tooth-paste would remove temporarily the mucic film. The Magistrate: What you say is that it is like the soap—it will keep you clean and prevent things from affecting your skin. Mr. Mortimer: Supposing a fly-paper was advertised as an excellent thing for killing flies, and then, in addition, there was a statement that flies spread disease? The Magistrate: A fly-paper is not a medicine. Mr. Mortimer said that the tooth-paste was put forward as a mucic-film combatant, but the film was not a disease. It was stated that the film was a substance in the teeth in which germs might grow and be nourished, and might produce decay or pyorrhœa. The paste was not recommended as a cure for pyorrhœa. A germ was not a disease; it might be perfectly healthy, although it might give rise to a disease. The magistrate questioned whether soap was a chemical preparation. Mr. Terrell (for the wholesale dealers) said that the chemical action of soap was to dissolve the grease on the skin. Mr. Beattie pointed out that in the soap case Mr. Justice Darling remarked that evidence might have been given to bring the soap within the meaning of the Act. The judge also declared that if water, or plain bread, was held out to be a medicine it was brought within the meaning of the Act. Mr. Mortimer said that, with respect to Mr. Justice Darling, that could not be so, as the Act only dealt with chemical preparations, and water was a product of the soil and not a chemical preparation. The Magistrate: There does not seem to be any difference between this case and the soap case. It is a cleansing material; I don't know that you can put it higher than that. Mr. Mortimer suggested as another analogous example Keating's Powder, which is sold for the removal of fleas and lice from the human body. Scarlet fever was supposed to be spread by fleas, but it could not be said because of that that Keating's Powder is liable to pay duty. Nobody would ever think of applying the word "medicine" to tooth-paste. Whoever would say, "I am going to take my medicine," meaning "I am going to brush my teeth"? Mr. Beattie: It is used as a medicine. The Magistrate: Is it? Does it do more than clean the teeth? Mr. Beattie: I would adopt the argument of Mr. Justice Darling, that, whatever it is, if it is bread, pill, or water, and it is to be used as medicine, then it comes within the Act. In the schedule of the Act there are three tooth-powders mentioned specifically by name—Tooth-powder Asiatic, Tooth-powder Paraguay, and Tooth-powder Royal. That is conclusive that tooth-powders come within the purview of the Act. Mr. Mortimer said that he would not dispute that, provided the tooth-powder was held out as a cure for tooth-ache. The Magistrate: It does not say so. To come within the purview of the Act all these things in the schedule must be medicines. Apparently they do think that tooth-pastes are medicines to a certain extent. After further argument the magistrate said that he should have to take time to consider his decision.

On August 25 Mr. Chester Jones delivered a considered judgment. He said that the case presented some difficulty. He found as a fact (1) that this tooth-paste was a chemical preparation, and (2) that it was held out as beneficial in the prevention, cure, or relief of a disorder or complaint incident to and affecting the human body. That being so, he held that this tooth paste was a medicine. It was not necessary for him to find that all tooth pastes and powders were medicines, but some tooth pastes and powders under peculiar circumstances were medicines. In the pamphlet which was enclosed in the carton it was suggested that the paste was a preventative of acidity, decay, and pyorrhœa

by reason of its removing a film from the teeth. Nearly every medicine was a specific for the purpose of removing some secretion which would otherwise cause disease. Under the circumstances he thought that this paste came within the words of the Act. It was clearly a chemical preparation to be used either internally or externally, though he was unable to say which. Anything that was to be used for the prevention or cure of disease was a medicine. Mr. Justice Darling had stated in the High Court that even bread or water might be a medicine if it was used in the prevention or cure of disease. It seemed to him that if this tooth-paste was sold in future in the same carton and with the same pamphlet it would have to be stamped as a patent medicine. Apparently there had been some misunderstanding as to the position, and he thought the justice of the case would be met by imposing a fine of 5*l*. Mr. Scott said it was realised that the case was very much on the borderline. The carton in which the tooth-paste was packed was an American one, and it had now been decided to alter the wording on this and in the pamphlet, so that they would not be open to any objection. The Magistrate: I think the defendants very likely did sell this thing unstamped in the belief that they were entitled to do it.

New Companies and Company News.

P.C. means Private Company and R.O. Registered Office.

Sozol, Ltd. (P.C.).—Capital, 200*l*. Objects: To carry on the business of manufacturers of and dealers in the chemical preparation known as "Sozol." R.O.: 20 Copthall Avenue, London, E.C.

Sunray Chemical Co., Ltd. (P.C.).—Capital, 1,000*l*. Objects: To carry on the business of pharmaceutical and general chemists, manufacturers of and dealers in powders and mixtures, compounds, pastes, blocks, tablets, and creams, polishes for metals, furniture, cutlery, plate, jewellery, floors and floor coverings, boot and other footwear, leather, motor-cars, woodwork, stone, marble, etc. R.O.: 32a Old Market Place, Grimsby.

Lever Bros., Ltd., have just taken over three of the largest coconut-oil concerns in the Philippine Islands—namely, the Visayan, Risal, and Philippine Refining Companies. The new corporation has a capital of $10,000,000, and bears the title of the Philippine Refining Corporation.

The Colombia Alkaloid Co., of Houston, Texas, has been granted a charter for $250,000 under the incorporators, R. T. Gibbs, R. S. Clower, and M. H. Webster, and have taken over the assets of the joint-stock association of the same name. The company intend to manufacture quinine and a general line of alkaloids and chemicals.

The Boots Alliance. — The "Financial Times" (August 24), in the course of an editorial article on the Americanisation of Boots, intimates that President Louis Liggett has issued a circular to the proprietors of the United Drug Co., in which he says, "My confidence in the future of our English purchase is greater to-day than it was at the time I made the offer. Reports from our people whom we have sent to England more than justify my making this statement." Mr. Liggett is also enabled to give American investors some account of the results of Boots Pure Drug Co. and its associated undertakings for the past financial year, which the public here (says the "Financial Times") is not so fortunate as to be in possession of on account of that coyness of publicity which Sir Jesse Boot has always shown, notwithstanding that he has raised so large a proportion of his capital from investors. The sales of Boots Pure Drug Co. for the year ended March 31, 1920, were about 7,000,000*l*., an increase of 2,500,000*l*. over the preceding period. "The percentage of earnings to volume," proceeds Mr. Liggett, "in the case of the Boots Co. is subnormal, being only about 60 per cent. of the normal percentage of earnings in our comparative business in the United States. The opportunity for an increase by the adaptation of some of our methods is therefore immediate." "We take this to mean" (says the "Financial Times"), "in super-American commercial language, that in comparison to turnover the net profit yielded by the Boots concerns is distinctly inferior to that which the United Drug Co. manages to extract. Therefore it is evidently expected that the Boots companies should produce in net revenue as much in proportion to turnover as the United Drug Co. Now how is this to be accomplished? As to that, we are left to an interesting speculation which may be either agreeable or disagreeable. We should judge that the process of bringing about an increased net profit is to be made first rather from within than without. So far there does not appear to be any intention to put up prices here to the consumer, and the experiment would certainly be a little dangerous at so early a stage of the American control." Since the above appeared in the "Financial Times," Sir Jesse Boot states that the combined sales of his wholesale and retail establishments were actually 8,000,000*l*., and that the advance over the preceding period was less than 1,000,000*l*. In giving Sir Jesse's version of the figures the "Financial Times" adds that "had it been the custom of the Boots companies to publish regularly their annual report and accounts no conflicting statements of this kind could possibly have occurred. Mr. George Gales, the new managing director of the Boots Pure Drug Co., is keen on introducing here such methods of production and administration as the United Drug Co. has found beneficial and useful in the States. We hope one of them will be that publicity of affairs which Boots' investors are entitled to here, and have not got, though United Drug Co. stockholders very properly enjoy it in America."

Anglo-Argentine Import and Export Co., Ltd.—At the Board of Trade Offices, London, W. 6, on August 20, meetings of creditors and shareholders were held in connection with the compulsory liquidation of this company, carrying on business at 14 St. Mary-at-Hill, London, E.C., against which a winding-up order was made in May last. A statement of the company's affairs showed unsecured liabilities of 2,226*l*. 10*s*. 8*d*., and assets estimated to produce 129*l*. 14*s*. 6*d*. The Official Receiver (Mr. H. E. Burgess) said that the company was registered in September 1919 to carry on business as produce and general merchants. The nominal capital was 2,000*l*., but only two shares had been issued, and they did not appear to have been paid for. The company was promoted by Mr. Richard Modern and Mr. Maurice Woolf, who had directed the company's affairs throughout. They had both acted as directors and had drawn considerable sums as directors' fees during the eight months of the company's life. As they did not appear to have qualified as members of the company, they had, in his opinion, acted as directors without the necessary qualification, and it might be that claims could be made against them for the return of their drawings, which amounted to some 760*l*. An agreement was entered into between Mr. Modern and the company under which he was to pass over to the company such goodwill as he possessed for 1,600*l*. in shares. The agreement, however, was never completed, and the shares were never issued. There was now practically nothing in the shape of assets, but Mr. Modern had stated that he hoped to make a proposal for the benefit of the creditors. The failure of the company was attributed by the directors to insufficient capital and to the difficulty of obtaining supplies from Germany. The Official Receiver questioned Mr. Modern as to the reason why the company had asked for cash with orders. Mr. Modern explained that they were dealing with the producers in Germany on similar terms. The cash was to be paid to the German producers as soon as the company had information that the goods were ready for delivery, but the company never, in fact, received information to this effect. The liquidation was left in the department of the Official Receiver. Among the creditors are: Wigglesworth, Ltd., 120*l*.; Crespin & Doumin, London, 30*l*.; Johnson, Matthey & Co., Ltd., London, 23*l*.; Fine Chemicals, Ltd., Dublin, 17*l*.; E. McSweeney, Cork, 11*l*.; and M. Schallaris, London, 34*l*.

An Historical Review of the Preparation of Quinine Sulphate in Java and in British India.

We are indebted to Heer P. Van Leersum, the former director of the Javanese Government cinchona plantation, whose decease we announced last week, for a valuable and interesting contribution on the development of the quinine industry in British India and in Java ("Algem. Landbouwweekbl. v. Nederl. Ind.," No. 46, 1920). In his introductory remarks he states that the Indians are credited with having discovered the value of cinchona bark, whereas von Humboldt ascribes its introduction to Europeans, who casually discovered the bitter taste of the bark, and, in common with other bitter remedies, employed it in the treatment of fever. The Spanish doctor Villerobel was probably the first to bring some of the bark to Spain in 1632, and there it was first tested in 1639 by a priest in Alcada. Another tradition records that Don Juan Lopez de Vega, medical attendant to Count Del Chinchon, Viceroy of Peru, received a quantity of cinchona bark from Don Juan Lopez de Carnizares, Corrigedor of the province of Loja, and with it cured, in 1638, the wife of the Viceroy. On her return to Spain in 1640 she brought some of the bark with her, and thus laid the foundation of its use; in fact, for a long time it was known as *Pulvis comitissæ*. The original home of the different varieties of cinchona is to be found in Bolivia, Peru, Ecuador, Columbia, and Venezuela. The ruthless manner in which the bark was obtained led to the wholesale destruction of the trees, and during the first half of the past century many travellers discussed the possibility of cultivating cinchona in other parts of the world. The first plantation of this valuable tree was undertaken by Markham in 1859 in British India, while the planting of seventy-five cinchona plants at Tjibodas in 1854 marked the beginning of its cultivation in Java. Prior to the isolation of its alkaloids, cinchona was used in the form of powdered bark, decoctions, extracts, etc. The following are the principal cinchona alkaloids:

Quinine, discovered by Pelletier and Caventou in 1820.
Quinidine, discovered by Henry and Delondre in 1833.
Cinchonine, discovered by Duncan in 1820, and made known by Pelletier and Caventou.
Cinchonidine, discovered by Winkler in 1848.

In addition there are numerous other substances present, such as quinamin, conchinamin, paricin, etc.

In view of the fact that about 95 per cent. of the bark is of no use to the manufacturer of quinine, it is evident that already at an early date in the history of quinine production steps were taken to obviate the necessity of conveying the whole bark a long distance to a factory—for instance, to Europe. Already in 1793 mention is made of an extract of cinchona prepared in South America, and in 1820 an extract of cinchona was imported into Hamburg bearing a label with "Extracto superior de Quina de la Fabrica de Benito Sebastian & Co., Cuzco." In 1841 there existed a quinine factory in Bolivia, but since the product was very impure it was little in request. Delondre, who was himself a manufacturer of quinine, erected in 1847 a factory in Valparaiso, which was closed in the following year. The first production of quinine in Asia took place at Ootacamund, in British India, and the author refers very fully to Broughton's enterprise in this connection. The method adopted by the latter fifty years ago is not without interest. Briefly, it consisted in boiling the fresh bark with 1 per cent. sulphuric acid; the liquid was then evaporated to one-sixth of its volume, transferred to a wooden vat and an excess of lime-water added; after filtering, the precipitate was dried, mixed with alcohol to which a little sulphuric acid was added, and by precipitation with caustic soda a product was obtained which Broughton called "amorphous quinine." This was stated to contain 18 per cent. of quinine, 54 per cent. of cinchonidine, 13 per cent. of cinchonine; amorphous alkaloid and colouring matter together 15 per cent. At that time the cost of production for one ounce amounted to 1 rupee, and it was sold by the Indian Government at the rate of 1 rupee 8 annas.

In 1873 C. H. Wood was entrusted by the British Government with the task of investigating the possibilities of preparing quinine from the Bengal plantations, particularly in Sikkim. He followed practically the same method as adopted by de Vrij, which yielded an amorphous white powder, known in India as "Cinchona Febrifuge" (in Java it was termed by de Vrij "Quinetum"), which in 1875 was sold by the Indian Government at 20 rupees a pound. The first attempts to manufacture alkaloids from the bark in Java were made in 1870, further investigations were undertaken in 1872 by Moens, and in 1877 Eydman introduced de Vrij's process. This consisted in extracting the bark with 1 per cent. hydrochloric acid for three days, and then precipitating the alkaloids by caustic soda. The residue was dissolved in dilute sulphuric acid and a precipitate obtained by the addition of caustic soda.

In 1900 Van Leersum secured the assistance of an expert staff at the Bandoeng factory, of which he was appointed director in 1902, and immediately set to work to solve the problem of the manufacture of pure quinine in Java. He then discussed the various factors which have to be considered in the manufacture of a pure product, and the difficulties that have to be overcome, which may be briefly referred to in the following points.

Calcium hydroxide is the best base for separating the alkaloids from the bark, but in order to render the cell-walls permeable to the calcium hydroxide, the addition of sodium hydroxide is necessary, and powdered bark, calcium hydroxide, and sodium hydroxide must be intimately mixed. The relative proportions are 30 parts of fine slaked lime to 100 parts of finely powdered dry bark, and 90 parts of a 0.5 per cent. solution of sodium hydroxide for each 100 parts of bark. This mixture is placed in an extractor, and, under the circumstances, the best extractive is benzol with a high boiling-point, or toluol of 120° C. boiling-point, which dissolves quinine 1 : 3. Petroleum and other earth oils have also been used as extractives; if the latter are employed the alkaloids are extracted by the addition of dilute sulphuric acid. If a substance is used which can be distilled off, *i.e.* benzol, dilute acid is first added to retain the alkaloids in solution when removing the solvent by distillation. The acid solution of alkaloid is brought to boiling by steam, neutralised by the addition of solution of caustic soda, and the solution of quinine is poured into crystallising-pans. The crude product is dissolved in dilute sulphuric acid, heated to boiling by steam, neutralised, and then filtered through charcoal. After crystallising out the crystals are centrifuged, washed, and dried. The latter process has to take place in the dark, and red or yellow glass must be used for the windows of the room in which this is done, since quinine sulphate loses its white colour on exposure to light. He mentioned that the appearance of the salt influences the price it commands—thus Howard's quinine is the highest quoted on the market owing to its fine appearance. The more voluminous it is the higher its value. Pure quinine sulphate does not yield such fine crystals as a product containing a certain amount of cinchonidine. Since the various Pharmacopœias permit the presence of a certain amount of cinchonidine in quinine, this is taken into consideration, and as Ledgeriana contains very little cinchonidine, Succirubra bark is mixed with the latter; Succirubra contains from 1 to 3 per cent. of cinchonidine.

The author then referred in detail to the manufacture of quinine from fresh bark by a process found after numerous experiments. Twenty-five grams of fresh bark are cut into small pieces and 2.5 grams of slaked lime are added. After pounding for five to ten minutes in a mortar the mass is sufficiently fine to be extracted. It is important to add exactly 10 per cent. of slaked lime. It is best extracted with toluol of a boiling-point of 120° C., and then submitted to the process described above. Van Leersum, in conclusion, strongly advocated extensive trials to establish the advantages of manufacturing quinine from fresh bark, as this process would reduce the cost of production of this previous drug. He favoured the creation of a Government experimental laboratory, and referred to attempts made by quinine manufacturers to purchase the rights of this process, which is being found satisfactory, although worked on a modest scale with imperfect

machinery, in the factory of K. A. R. Bosscha in Malabar. He reckons that the cost of producing 1 kilogram of quinine sulphate by this new process and making therefrom 5,000 tablets would amount to 3 florins, whereas the present cost of production amounts to 6.50 florins. It takes on an average 18 kilograms of dried bark to produce 1 kilogram of quinine sulphate, the average cost of 1 kilogram of bark being about 32 cents.

Association Affairs.

Belfast.—The Ulster Retail Drug-trade Association held a committee meeting on August 24. Mr. S. Suffern (President) in the chair. The following were also present: Messrs. W. E. Wilson, W. J. Rankin, J. C. Culbert, A. W. Mann, Wm. McCartney, J. Dundee, Wm. Dobbin, J. Shillington, H. Crail, D. Henderson, and the Secretary (W. J. Stevenson). The Committee decided to call a special meeting to discuss the Proprietary Medicines Bill. A meeting of the employers' section was held immediately after the close of the general section.

Dublin.—The Dublin Retail Drug Association held a meeting on August 11, Mr. D. M. Watson (President) in the chair. The following were also present: Messrs. G. Brown, R. E. Campbell, R. J. Savage, W. B. Conyngham, J. Smith, R. White, Dr. J. A. Walsh, and Mr. R. J. Kidney, secretary. Correspondence from Messrs. V. E. Hanna, Johnston Bros., and Scott & Bowne, Ltd., was received and dealt with. In connection with the new price of Scott's Emulsion the committee desire to draw the attention of members to the fact that they have now agreed that all stocks on hand are to be sold at the new price, and gummed labels will be supplied upon application to the manufacturers. The treasurer's financial statement was approved.

North-Western Federation.—The North-Western Federation of Pharmaceutical Associations met at the Royal Institution, Liverpool, on August 25, the President, Mr. F. W. Bates (Manchester) occupied the chair. Delegates from each of the four counties, numbering nearly fifty in all, attended. Mr. Harold Wyatt (Bootle) was congratulated on his enrolment as a Justice of the Peace for the county and parliamentary borough of Bootle. Long discussions, which were held *in camera* on matters of private and confidential business took place, assistants' wages being one of the chief topics. A series of resolutions was recorded, but these were not to be communicated to the Press. The speakers included Mr. David H. Evans (President of the Liverpool Chemists' Associations), Mr. L. Moreton Parry, Mr. C. Hare (Southport), Mr. Wallbridge, and many others. The delegates were entertained to tea at the Royal Institution.

New Books.

Grieve, M. *Culinary Herbs: How to grow and where to sell, with an account of their uses and history.* 7¼ in. × by 4¾ in. Pp. 98. 3*s.* post free. The Author, The Whins, Chalfont St. Peter, Bucks. [Mrs. Grieve, whose efforts to stimulate the cultivation in this country of medicinal plants are well known, has written this book for the British Guild of Herb Growers. It deals with what are known as sweet herbs, such as are used in cooking, and includes anise, basil, lovage, marjoram, dill, fennel, rosemary, tansy, and thyme.]

Grieve, M. *Mints, their Cultivation and Use.* 8¼ in. × 5⅛ in. Pp. 30. 9*d.* post free. The Author, The Whins, Chalfont St. Peter, Bucks. [The mints dealt with are spearmint, peppermint, pennyroyal, corn mint, wild mint, bergamot mint, round-leaved mint, American horsemint and bergamot. Good accounts are given of the cultivation and properties of these mints, which will be appreciated by those who desire to take up the growing of medicinal plants.]

Prescription Pricing Chart.

For small quantities.

An extension of the Pricing Chart published in the *C. & D.*, February 28, 1920.

Where the quotations are per drachm, calculated to the nearest first-place decimal upwards.

℥j.	gr. L.	℈ij.	ʒss.	℈j.	gr. x.	gr. v.
60 grains	50 grains	40 grains	30 grains	20 grains	10 grains	5 grains
d.	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*
1·0	0·9	0·7	0·5	0·4	0·2	0·1
2·0	1·7	1·4	1·1	0·7	0·4	0·2
3·0	2·5	2·0	1·5	1·0	0·5	0·3
4·0	3·4	2·7	2·1	1·4	0·7	0·4
5·0	4·2	3·4	2·6	1·7	0·9	0·5
6·0	5·0	4·0	3·0	2·0	1·0	0·5
7·0	6·0	4·8	3·6	2·4	1·2	0·6
8·0	7·0	5·6	4·2	2·8	1·4	0·7
9·0	7·5	6·0	4·5	3·0	1·5	0·8
10·0	8·5	6·8	5·1	3·4	1·7	0·9
11·0	9·2	7·4	5·5	3·7	1·9	1·0
12·0	10·0	8·0	6·0	4·0	2·0	1·0

Insurance Administration (Scotland) Report.

The report on the administration of National Health Insurance in Scotland during the years 1917-19 has just been issued [Cmd. 827, 9*d.*]. As this is the final report issued by the National Insurance Commission (Scotland), who demit office in favour of the Scottish Board of Health, a brief *résumé* of the history of Health Insurance in Scotland from its inception to the present day is given as a foreword. The total number of persons, firms, and bodies corporate with shops on the panel of all Insurance Committees in Scotland on January 1, 1918, was 2,185, of whom 881 were on county and 1,304 on burgh lists. The actual total of chemists' businesses does not exceed 1,200. The report gives also a review of the changes in the tariff charges during 1918, including the prescribing of glycerin and sugar; the revision at monthly intervals of the prices because "it seemed to the Commissioners that the difficulties of the wholesale market during the past year justified the chemists' position, and they advised Insurance Committees to agree to the monthly revision of the whole tariff." It is interesting to note that arising out of the Defence of the Realm Regulations whereby it was necessary for chemists to retain prescriptions containing cocaine, exemption was obtained for Insurance prescriptions. The exception was made in view of the general arrangements for the supply of medicines, etc., whereby the chemist surrenders his scripts for the purposes of payment. The inspection of the carbon copy retained by the chemist was found to be sufficient in most cases for the purposes of the police authorities in connection with their duties, but where such was not the case Insurance Committees were advised to produce the original script. Appendix VII. gives the statistics of the drug expenditure for the years 1917 and 1918 in each county. The figures for the whole of Scotland are as follows:

—	No. of Prescription Forms Allowed		Total Value		Average Cost	
	1917	1918	1917	1918	1917	1918
			£ s. d.	£ s. d.	*d.*	*d.*
Burghs ..	1,175,418	1,269,478	46,265 3 9¼	59,115 13 3½	9.45	11.18
Counties	630,233	731,868	26,489 7 8½	36,729 15 7	10.09	12.05

Births.

Holmes.—At 96 Earnsdale Road, Darwen, on August 18, the wife of N. W. Holmes, chemist and druggist, of twins (boys).

Linton.—At the Nursing Home, Newry, on August 17, the wife of Ernest Linton, R.D., 79 Hill Street, of a son.

Deaths.

Kirk.—At Bethesda, on August 18, Mr. William Peele Kirk, Ph.C., 45 Sommerville Road, Waterloo, Liverpool, aged sixty-five. Mr. Kirk, who passed both the Qualifying and Major examinations in 1879, was, for over forty years, with Clay & Abraham, Ltd., Castle Street, Liverpool, several members of whose staff, including Mr. T. Fell Abraham, Ph.C., and Mr. H. K. Coates, attended the funeral on August 21. Mr. T. Fell Abraham, speaking recently in reference to Mr. Kirk's abilities, said :

He was a most conscientious and efficient worker, whose hobby was his profession. Nothing would induce him to leave either the Castle Street branch, of which he was formerly manager, or the head pharmacy in Bold Street, until he felt sure that there remained nothing more to be attended to. He simply would not "take it easy" or slacken his efforts.

McBurnie.—At his residence, 48 Oldpark Road, Belfast, on August 21, Mr. Thomas McBurnie, chemist and druggist. Mr. McBurnie, who was one of the oldest members of the drug-trade in the North of Ireland, at one time carried on business in Glenarm, subsequently becoming manager for the late Mr. J. McClement, J.P., chemist and druggist. Of recent years he has been in ill-health and lived in retirement.

Randall.—At St. John's Hill, Wareham, on August 19, Mr. William Joseph Randall, Ph.C., eldest son of the late Mr. Thomas Randall, of Wareham. Mr. Randall passed the Major examination in 1884.

Sivertsen.—At his father's residence, West Cross, Glam., on August 19, after a brief illness, Mr. Werner T. Sivertsen, chemist and druggist, aged forty. Mr. Sivertsen, who was born in Norway, was apprenticed to Mr. E. G. Varley, chemist and druggist, Mumbles, near Swansea, and commenced his studies at Swansea Technical School. During this period he was a frequent prize-winner in the "Corner for Students" in The Chemist and Druggist. He was a lecturer in pharmacy and materia medica at Swansea Technical School, and took great interest in pharmaceutical affairs, being secretary of the South Wales and Monmouthshire Federation. He attended the recent meeting of the British Pharmaceutical Conference in Liverpool.

Smith.—At Grange Road, Shanklin, Isle of Wight, on August 13, Mr. William Smith, chemist, aged ninety-one. Mr. Smith, a native of Warwickshire, was apprenticed at Hinckley, and came to London in 1850. He was an assistant with Maitland & Co., Torrington Place, and at the Holborn branch of Corbyn & Co. He then opened a business at 48 Porchester Road, Bayswater, which he carried on for fifty-six years, closing it when he retired in 1912. Mr. Smith leaves a large family, the elder son, Mr. G. Rowat-Smith, being the junior partner of H. Roberts & Co., pharmaceutical chemists, Florence, Rome, etc.

Personalities.

Mr. John C. Lee, chemist and druggist, Barton-on-Humber, has been appointed a county magistrate.

Mr. R. M. Campbell, of F. & R. Campbell, chemists, Feilding, New Zealand, is at present in this country.

Mr. R. V. N. Hopkins, C.B., Secretary, Board of Inland Revenue, has been appointed a Knight Commander of the Order of the Bath.

Mr. G. C. Ratcliff, West of England manager to Sterns, Ltd., Royal London House, Finsbury Square, E.C., can now be addressed at 45 Effingham Road, St. Andrew's Park, Bristol.

The daughter of Mr. W. H. Davies, chemist and druggist, Mill Street, Guernsey, recently won the ladies' senior swimming championship in the island. This will enable her to retain the silver championship belt for another year.

Mr. Douglas Kirkman, son of Mr. W. E. Kirkman, chemist and druggist, New Milton, has been awarded a university scholarship, tenable for three years at an English University. Mr. Kirkman, jun., gained the Inter. B.Sc. when sixteen years of age.

At the recent ballot for the position of general secretary to the Amalgamated Society of Pharmacists, Drug and Chemical Workers, Mr. Herbert R. Nightingale, pharmacist, member of the Pharmaceutical Society, was elected to the position by a majority of 800.

Captain G. Stanley Phillips, M.R.C.S., L.R.C.P., R.A.M.C., mentioned in a recent dispatch by General Sir Charles Munroe, is the son of Mr. G. Phillips, chemist and druggist, Hall Street, Carmarthen. Captain Phillips has seen considerable service in Mesopotamia and India. At the present time he is in practice at Briton Ferry, where he was recently appointed Chairman of the local branch of the Welsh Legion of ex-Service men.

Wills.

Mr. George John Windeatt, chemist and druggist, 15 South Avenue, Polsloe Road, Exeter, who died on May 27, left estate of the gross value of 7,931*l.* 0*s.* 9*d.*

Mr. Joseph Barrow, Woodhey, Malford Grove, South Woodford, a director of Edward Cook & Co., Ltd., who died on February 15, left estate of the gross value of 13,573*l.* 9*s.* 9*d.*, with net personalty 12,116*l.* 5*s.* 9*d.*

Mr. Charles Wall Turner, chemist and druggist, Castille, Beccles Road, Worthing, late proprietor of Anderson & Virgo, chemists, Worcester, who died on May 16, has left property of the value of 25,862*l.* 10*s.* 6*d.*, of which 21,882*l.* 6*s.* 6*d.* is net personalty. The will is proved by the widow, Mrs. Edith Mary Turner, and George Thomas Turner, brother. The testator gives to the Worcester Masonic Lodge, No. 280, all his shares in the Worcester Masonic Building Co., Ltd., "in memory of the many happy moments I have spent with the members of the Lodge," to his wife 1,000*l.* and his freehold residence and furniture, to his son Charles Kenneth 1,000*l.*, to his daughter Catherine Elsie 1,000*l.*, and to the executors 100*l.* each. The residue of the property is to be held in trust for Mrs. Turner for life, and then for his children.

Business Changes.

Mr. George Moore, chemist and druggist, late of Clydach Vale, Glamorgan, has purchased the business at 43 Domestic Street, Holbeck, Leeds.

Mr P. R. Lewis, chemist and druggist (late of 2 Penton Street, Islington), has opened a pharmacy under the name of Cuthberts, at 4 and 6 Hartfield Road, Wimbledon, London, S.W. An innovation has been the inclusion of a tobacco department on the American principle. Chocolates and light refreshments are other departments.

The German dyeworks have decided not to grant a longer credit than thirty days dating from the day of invoicing, and no discount will be allowed in future.

The Worcester County Council object to the Board of Agriculture's suggestion that the county police should act as inspectors of gooseberries to detect the American blight.

Trade Notes.

The telephone numbers of the Keene Co., manufacturing chemists, 52 Gray's Inn Road, London, W.C. 1, are now Holborn 2817 and 2818.

Mr. K. B. Mavlankar, 26-27 Hatton Garden, London, E.C., has been appointed sole agent for Fred. Pedone, Lauriel & Figlio, Palermo, Sicily, producers and shippers of essential oils.

Osmos Aperient Water.—From September 1 the retail price of Osmos Aperient Water is 3*s*. per bottle. Attention is directed to the bonus offer of four bottles with each order of a dozen.

Carma is a new preparation for capping bottles. It is a solution into which the corked or stoppered neck of the bottle is dipped. The Carma Co., 1 Steward Street, London, E. 1, will supply particulars.

"Ayrton's Supplement" for August is the autumn number, and especially refers to goods which are in demand at the fall of the year. It is a useful reminder of the goods the stock of which should be renewed now.

Desrue-Larene Toilet Preparations.—These are offered by the sole agents in this country, J. Nassan & Co., 129 Wool Exchange, Basinghall Street, London, E.C. 2, whose advertisement in this issue enumerates some of the leading lines.

Stocktaking.—Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C. 1, ask us to state that their warehouses will be closed on Tuesday, August 31, for the purpose of stocktaking. Only emergency orders can be executed by the firm on that day.

The Lonabarc Trading Co., Ltd., 5 Finsbury Square, London, E.C., have been appointed sole agents for Fratelli Barbagallo di Manro, producers and shippers, Fiumefreddo, Sicily, who specialise in bergamot and in terpeneless and sesquiterpeneless essential oils.

Montrose Scalp-brush.—This is the name of a specially shaped bristle brush patented by Montrose, Shawfield & Co., 71 New Oxford Street, London, W.C. 1, for cleaning and stimulating the scalp of the head. The brush will shortly be placed on the market to retail at 3*s*. 6*d*.

Perfect Cold Cream.—Macleans, Ltd., 6 Spring Street, London, W. 2, send us a sample of the Perfect cold cream, which they pack in tube and carton for sale by chemists. The tubes have the lettering printed direct on to them. Other winter goods put up in the same way are toilet lanoline and vanishing cream.

"Novotone" is a synthetic perfume prepared by Antoine Chiris, Ltd., 3 Drapers Gardens, London, E.C. It is largely used in the United States, not only as a "lily" base, but also in many floral compounds, and perfumers looking for something new for their Christmas preparations will be interested in it.

Carrier Cycles.—The Mohawk Cycle Co., Ltd., 2, 4 and 6 Alexandra Road, Hornsey, London, N. 8, call attention to the carrier cycles they manufacture for use in distributing chemists' goods. As an advertisement of a business the cycle has considerable value, and the prompter delivery of goods is appreciated by customers.

Aspirin Showcard.—Arthur H. Cox & Co., Ltd., manufacturing chemists, Brighton, send out a distinctive showcard as an advertisement of aspirin tablets. The name of Messrs. Cox does not appear on the card, but on the full-size illustration of a bottle of the tablets is a label with the chemist's name on. The idea is a good one, as it helps to associate the chemist's name with the goods sold.

Pears' Soap Advertisements.—A. & F. Pears, Ltd., 71-75 New Oxford Street, London, W.C. 1, had a striking advertisement of Pears' soap on the front page of the "Daily Mail" on August 26. This and the page which appeared earlier in the month (reproduced in Messrs. Pears' advertisement in this issue) are calculated to increase the interest of the public in this already popular soap.

First-Aid Equipment.—The Factory First-Aid Association, 69 Chestnut Avenue, Walthamstow, E. 17, remind us that on September 1 it will be compulsory, under a Home Office Order, for all works where gut-scraping and tripe-dressing are carried on to be provided with first-aid equipment of a special kind, including: (1) Sterile finger dressings; (2) sterile hand and foot dressings; (3) sterile body dressings; (4) waterproof plaster; (5) iodine solution. Chemists should be prepared to meet the demands from factories which exist in their neighbourhood.

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration. See "The Chemist and Druggist Diary" 1920, p. 308.

(From "The Trade-marks Journal," August 4, 1920.)

"Pegolia"; for perfumery, etc. (48). By H. M. Pegg and W. E. Ghent, 30 Sillwood Road, Brighton. 403,129.

"Opcos"; for all toilet preparations (48). By the "Ozone" Preparations Co., 152 Fulham Palace Road, Hammersmith, W. 6. 403,287.

"Veleta"; for perfumery, etc. (48). By the County Chemical Co., Ltd., Bradford Street, Birmingham. 404,177.

(From "The Trade-marks Journal," August 11, 1920.)

"Andar"; for chemicals (1). By W. Millar, J. M. Anderson, and L. Anderson, 6 Park Avenue, Connisbrook Avenue, Belfast. 401,116. (Associated.)

"Visculose"; for chemicals (1) and for adhesives (50). By the "Gloy" Manufacturing Co., Ltd., 16 and 17 Devonshire Square, London, E.C. 2. 404,421/22. (Associated.)

"Valls Ratcuie"; for vermin destroyers (2). By Marion L. E. Vallance, 1 Kildare Terrace, Bayswater, London, W. 2. 402,062.

"Denofa"; for chemicals (2), medicinal chemicals (3), goods (47), and for perfumery, etc. (48). By De Nordiske Fabriker De-No-Fa Aktieselskap, 43 Carl Johansgade, Christiania, Norway. 403,533/4/5/6. (Associated.)

"Stagol," with device of stag; for cattle medicines and disinfectants (2). By Alex. Robertson & Sons, Ltd., Argyle Chemical Works, Soroba Road, Oban. 403,642. (Associated.)

Information Department.

INFORMATION WANTED.

Postal or telephone information with respect to makers or first hand suppliers of the undermentioned articles will be appreciated

G/198. "Kockrittle" (cockroach killer)
B/188. Sellers Indian oil
O/238. Vanloosh's essence of linseed and honey
S/248. Westcott's pills
S/258. Pilcher's hair lotion
R/248. "Jvara-Hara" fever destroyer (Henry's Great Indian Remedies Co., Madras); London suppliers
S/248. Prout's badger hair tooth-brushes

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, The Chemist and Druggist, 42 Cannon Street, London, E.C. 4:

Agaric, W/188
Artificial eyes, D/238
Bonjeans pills, B/208
Bow's liniment, HF/188
Copper Chloride, EW/198
Desvages Mexican corn cure, B/208
Dextrine, S/218
Dorins preparations, S/248
Dowell feeding-bottle, C/198
Fellows' syrup of hypophosphites, HF/188
Green corn-paint bottles, M/198
Hair-cutting comb, SB/208
Hoplemuroma, S/138
Hygiama, S/218 and S/248
"Ingot" feeding-bottles, D/208
"Invincible" dressing comb, P/188
Jackel's cream, SM/138
Japanese bottles, D/208
"Kalos" liquorice, T/258
Lacy's formalin disinfecting powder, G/168
Lead seals, Y/258
Liquid glucose, A/198
Lysol bottles, W/208
Macaura's vibrator, C/248
Mackenzie's arsenical toilet soap, JL/208
Matthew's fuller's-earth cream, M/188
"Moovit," BB/245
Ol. theobrom. (Fry's), S/258
Parazone, F/248
"Perfection" bed pan, J/208
"Rough-on-Rats," B/208
Sphygmanometer, L/208
Stannoxyl tablets, S/258
Toilet rolls, J/208
Williams, Dr., pink pills, JL/248
"Zon Vac" all-British vacuum flask, S/78

Observations and Reflections.

By Xrayser II.

The Educational Information

conveyed in your last week's issue looks formidable enough to daunt the young aspirant to a pharmaceutical career, but he may take courage from the reflection that the difficulty is greatly enhanced in appearance by the compression you have necessarily to use. The presentation of the whole course in one view makes it look much more difficult than it is; the hill, when it is being climbed, proves much less steep than it appeared from a distance. Still, your summary of what is required for qualification gives point to what you say in your leader of the progress of pharmaceutical education and the special temperament required, or at least desirable, in one who contemplates this career. The latter point deserves emphasis. The intending student will do well to ask himself whether he has the taste for this kind of study, for taste and faculty are nearly allied. I am glad, by the way, that incidentally you deal a blow at the old absurdity that a little knowledge is a dangerous thing. What Pope actually said was "a little learning," which is not quite the same thing, though that, too, is absurd enough, taken by itself. Even with the context, "Drink deep, or taste not the Pierian spring," is a little questionable, unless it be understood merely as a stimulus to further study. A little knowledge is always better than none.

The Resolution of the Council

regarding the proposed alterations in the Poisons Schedule again shows the inability of our would-be legislators to write good, unambiguous English. In your remarks upon this resolution you do more than suggest that there is no great call for the inclusion of zinc chloride in the schedule, and there is, I presume, no doubt that the resolution intends to exempt preparations of zinc intended for soldering, "provided that they are contained in closed vessels labelled with the word 'poisonous,' etc." But the proviso I quote is so introduced that grammatically it refers to the first, not the second clause of the sentence in which it occurs. By deleting the comma after "soldering" and substituting "and" for "provided that they are" the sentence might have been made correct and its meaning unmistakable, but this would have been too simple for our wiseacres.

Dr. McWalter thinks

the Proprietary Medicines Bill will enhance the trade value of all existing patents. Surely his "all" does not include those that profess to cure or relieve any of the diseases mentioned in the Schedule, for all these the Bill would simply suppress. Add to them those which the Minister of Health will have power to remove from the Register, and Dr. McWalter's "all" becomes "fine by degrees and beautifully less." No proprietor will be absolutely sure that his nostrum will not sooner or later be placed upon the Minister's "Index expurgatorius"; how will the liability to this prohibition enhance its value? The fact that such power is even conditionally lodged with the Ministry of Health is, as I have said before, symptomatic of the spirit of the Bill; it shows plainly that its promoters regard all patent medicines with suspicion, if not with positive hostility, that they would fain suppress them all if they could, and only allow any because they dare not attack them. And their forbearance will, thinks Dr. McWalter, enhance the trade value of these permitted articles! We cannot dissociate the Bill from the

Select Committee on Patent Medicines.

What did the report of that Committee make the chief point of attack? It was the *fraud* practised by proprietors of patents, and that alleged fraud was twofold. Many of the patents were declared worthless; all alike were scandalously dear; if not fraudulent in regard to their alleged properties, they were so in regard to the price charged for them. Now I, personally, am not concerned to defend all the patents mentioned in "Secret Remedies: What they cost and what they contain," unfair and exaggerated as many of the statements in that book have been shown to be. I am no lover of the mammoth advertisement or of the wares it forces upon me, but when in the endeavour to control these my own or my fellow-pharmacists' honest, useful, fairly-priced proprietaries—and there are thousands of such in daily demand up and down the country—are forbidden or subjected to injurious conditions I cannot submit without protest, and I do not doubt that many of the large proprietors could protest with an equally good conscience.

Returning to the matter of Fraud,

the introduction of the cost-factor is really irrelevant. The medicinal value of a patent as of medicine of any kind ought to be estimated, not by what it costs, but by what it effects. Blank's mixture for epilepsy may contain nothing but threepennyworth of bromides, but if it keeps off fits it may be worth to the sufferer the half-crown charged for it. True, he might get the bromides for a sixth less than that if only he knew of them, but he does not. It was Blank who brought this remedy to him and induced him to take it; does that count for nothing? But Blank should have told him what the stuff was, and how cheap it was! Does the doctor? It seems to me that those who attack patents on these grounds stand in very slippery places. The price is due, not to cost only, but to service and upkeep (just as other trade-prices are); the secrecy answers to the divinity that doth hedge a king, to the "wisdom in the wig" of the lawyer, to the mystery enveloping "the profession." Why should fraud be alleged in the one case and not in the others? This argument may be pushed too far, but it is essentially sound, and the fact that it is ignored by the promoters of this Bill is a solid ground of objection to the Bill itself. It appears that I am defending these "patents" after all, but truth is great and will prevail.

Antoine Augustin Parmentier,

chief apothecary of the Hôtel des Invalides, of whom your Paris correspondent gave some interesting particulars a few weeks since, is perhaps best remembered for his advocacy of the potato, which had fallen into such disfavour in France that it was given to cattle only and never used as human food. The reason for this was a belief, which according to Gaspard Bauhin originated in Burgundy, that the habitual use of potatoes as food caused leprosy and other diseases. In 1771, when serious famine threatened, the Academy of Besançon offered a prize for a suggestion how to avert it, and Parmentier, who had seen the beneficial results of potato cultivation in Germany, not only won it but succeeded in restoring the tubers to favour. There seems to have been a good deal of prejudice against them elsewhere than in France. Gerard (who, by the way, in the first edition of his Herbal gives what is believed to be the earliest published figure of the plant) speaks well of them, but they were long in coming into common use, and the poet Waller, in "The Battel of the Summer Islands" (the Bermudas), refers to them as being food for "wanton swine," perhaps an allusion to their supposed aphrodisiac properties, to which Shakespeare also alludes. The figure in Gerard's book to which reference has been made was superseded in Johnson's edition by one much more like the plant.

Destruction of Rats.—The Ministry of Agriculture and Fisheries is preparing large quantities of red squill, by means of which it is hoped to exterminate the rats at Kew Gardens, London.

A Source of Revenue.—Educational institutions in need of financial help might well follow the lead of Bristol University. Forty-one pigs, the property of the university, were recently sold for 2,660*l*.

The Natalite Spirit Co. of Australia is being formed to purchase the sole rights to manufacture and sell in Australia the South African motor spirit "Natalite," also to manufacture chloroform, ether, rectified and methylated spirit, and fertilisers.

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Editorial Articles.

The Finance Act, 1920.

The Chancellor has reached the crown of his labours in getting the Finance Act safely through Parliament before the adjournment. That this was no small achievement everyone must admit who remembers the waves of hostile criticism which from time to time threatened to submerge the measure during its progress through the House of Commons. A notable fact is that the increased excess profits duty, which was so warmly assailed, has been adopted with so little modification of the Chancellor's original proposals. A concession is made by extending the "small-trader's allowance" to businesses in which the pre-war standard of profits does not exceed 2,000*l.* and the profits of the accounting period do not exceed 4,000*l.* And where the person taxable has seen service in the war, the allowance of 200*l.* is in addition increased in his favour to 500*l.* But it is in regard to the income-tax that the changes made by the Act are most likely to attract public attention. Under the system in force prior to the Act the tax was levied at varying rates according to the total income of the taxpayer and according as that income was earned or unearned. These rates are now done away with, and all income is assessable as to the first 225*l.* of taxable income at half the standard rate, and as to the remainder at the full standard rate of 6*s.* in the £. Allowances from gross income are made in respect of wife, children (including adopted children), and other relatives dependent on the taxpayer, the Act defining the word "relative" for this purpose as any person of whom the taxpayer had the custody and whom he maintained at his own expense while that person was under sixteen. The Act also contains the much-debated corporation profits tax, which is leviable at the rate of 5 per cent. on (*a*) the profits of a British company wherever made, and (*b*) the profits of a foreign company trading in the United Kingdom, so far as these profits are made in the United Kingdom. One of the most striking features of the Act is the elaborate tariff of duties on mechanically propelled vehicles, which is contained in the second schedule. In drafting it the Chancellor would seem to have listened sympathetically turn by turn to most of the motor-car tax reformers who for some months past have burdened the columns of the Press with their fiscal suggestions. It is not at all certain that it will appeal strongly to the officials who will be charged with its administration. The proposed increases in the duties on beer, wines, and spirits have been adopted with the not very substantial concession that the additional *ad valorem* duty on sparkling wine is to be only 33½ per cent. Section 10 of the Act represents the Chancellor's attempt to solve the difficulty, which has more than once confounded his predecessors in office, of how such a tax can be fairly assessed in practice. The duty is to be charged on the value in bond at the port of importation as fixed by the Commissioners of Customs and Excise. If the taxpayer disputes the value fixed by the Commissioners, he is to get a right of appeal to a referee nominated by the Treasury in accordance with rules made by the Treasury under the Finance (No. 2) Act, 1915. As to this we feel inclined to think that the aggrieved taxpayer will find he is only appealing "from Philip drunk to Philip sober." Apart from the merits or demerits of its particular provisions, the Act is undoubtedly a notable achievement in an overcrowded session.

British Association.

The eighty-eighth annual meeting of the British Association for the Advancement of Science was opened on August 24 and will continue until August 28. It was appropriate that the presidential address given by Professor W. A. Herdman, F.R.S., Professor of Oceanography in the University of Liverpool, in a seaport town like Cardiff, which looks upon the important sea-fisheries centre, the Bristol Channel, should refer to the science of oceanography. Nevertheless, the President made it clear that it was to the whole population of Great Britain, by instinct and tradition a maritime nation, that he addressed his remarks urging a better and more scientific knowledge of the great industries of the sea. While pharmacists as such may not be immediately concerned with the science of oceanography there is much in Prof. Herdman's address that will give those with a scientific turn of mind food for reflection. For, as the President pointed out, national efficiency depends to a great extent upon the degree in which scientific investigation is promoted, by the Government and other administrative authorities. The first section of the paper was retrospective. The science of oceanography, he said, dated only from 1873, when Sir John Murray started dredging operations on board the *Challenger*, and the peculiar difficulties of investigators during these forty years were amply illustrated. Detailed reference was made also to the inhabitants of the various ocean zones, the investigation and prediction of tidal phenomena, and the spawning of the fresh-water eel, which seems to rank among the strangest in the whole of Nature. The seasonal variation in the floating plankton, which determines the migration of the herring and mackerel shoals, was treated with interesting details, regarding which, however, there is, at present, no certainty. It is assumed as a fact that tropical waters support a less abundant plankton than the cold polar seas, and this has been ascribed by Putter to the increased metabolism in the warmer water causing the available food materials rapidly to be used up, and so checking the reproduction of the plankton. Van 't Hoff's law in chemistry, that the rate at which a reaction takes place is increased by raising the temperature, was here considered to hold good for all bio-chemical phenomena, and, indeed, this has been verified. Next he pointed out that the secretion of calcium carbonate in the form of shells and skeletons proceeds more rapidly in warm than in cold water, and gave some interesting examples. The difference in the work of the marine biologist compared to that of the oceanographer, he said, is that the former's work is in the main qualitative, while the latter adds to the quantitative aspect. The importance of the study of these minute inhabitants of the ocean was shown in the speaker's statement that the prospect of a year's fishing may depend largely on their presence in sufficient quantity in the surface layers of the sea, which in turn depends upon other factors, including photosynthesis and physico-chemical changes in the water. Research is the urgent need of the science which is closely related to bio-chemistry and physical chemistry. Oceanography, he said, is to enable the fisherman to become less of a raider and more of a farmer of the sea if the harvest is to be less precarious. The Chemistry section is presided over by Mr. C. T. Heycock, and among the papers were the following: "Industrial Alcohol," "Lubrication," "Fuel Economy," which seems a very topical subject at present, and "Isotropic Elements." In the last-named paper it is anticipated that Professors Rutherford and Soddy may take part. The Botany section is presided over by Miss E. R. Saunders, who gave an erudite address on "Inheritance and Mendelism." The programme is a very extensive one, and it is interesting to note that next year psychology, which has hitherto been a branch of physiology, will be promoted to the dignity of a full section. Sir T. E. Thorpe is the President of next year's Edinburgh meeting, and Colombo is spoken of as the most probable meeting-place for 1922.

The Rally in Seed-oils.

In the course of July there was a further substantial decline in seed-oils, chiefly on account of an absence of trade demand, except for urgent trade requirements, and forward speculative operations were also curtailed. At the beginning of August, however, a firmer feeling set in and seed prices rallied moderately from the worst. This tended to revive interest on the part of crushers in face of an improving demand by consumers of most oil products. The price of London spot linseed-oil, which had last month yielded to about 72*l*., has been lifted just lately to well over 80*l*. per ton, and the demand still appears to be fairly good, while crushers have had a better command of the market than has been the case for a long time past. The margin of working has become more satisfactory, and the stability of the market is assisted by the fact that crushers' output is easily absorbed, especially in view of the somewhat more restricted operations at the mills, as usual at this time of the year. Owing to the rather complex labour outlook, it is generally felt that the policy to go slow in the development of manufacturing operations is wise, and there is no indication of any rush of new buying by linseed-oil users until trade possibilities can be more accurately gauged. This aspect of the situation probably accounts for the fact that the recent decision to grant an increase of 5*s*. a week for adults in the crushing industry fell short of early anticipations. The present check to industrial operations, as emphasised by the result of investigations made by the home Chambers of Commerce, leaves not much doubt that rather indifferent and unsettled trade conditions are apprehended over the remainder of the year. The fact deserves notice that the total shipments of linseed from India this season up to the middle of July were only 76,500 tons, of which 60,000 tons were booked for this country out of a total prospective crop surplus of 433,000 tons. The bulk of this has yet to come forward, chiefly to this country. The outstanding feature in regard to the export movement from the River Plate this season has been the comparatively heavy proportion of the supplies gone to American ports direct, the total of these since January 1 to mid-July representing 385,000 tons, while only 123,000 tons came to this country and 108,000 tons went to the Continent. The sum total of Argentine shipments to the date given thus represent 617,000 tons. It is significant, however, that the unshipped balance of the Argentine crop, which has proved one of the biggest on record, is estimated at well over 350,000 tons. Even assuming that, as suggested by a trade authority, a large portion of the surplus is already ear-marked for shipment to the United States, there is in any case an abundance of Indian seed to come along. It is probable, therefore, that when the full weight of the River Plate and Indian crops makes itself felt the absorbing capacity of the crushing industry will be met to such an extent as to bring about a renewed downward movement in values unless something should go seriously amiss with the new North American crops, in

the event of which the next season's River Plate crop would have to be depended upon largely by American crushers. Crop accounts so far, both from the United States and Canada, seem quite satisfactory, and the yield, given normal weather conditions, should turn out well in excess of that secured last year. A lot of comparatively cheap seed has yet to be shipped to this side against outstanding contracts, and, so far as can be ascertained, crushers have already anticipated their needs to a fairly large extent over the remainder of this year. The new season will probably be entered upon with a good surplus, especially of Indian seed. There is certainly room for a further fall in seed prices under more restricted competition, although the shipments to Continental ports may be expected to experience a further gradual expansion, given an improvement in the rates of exchange. The renewed considerable advance in the price of silver has, of course, had some effect on the attitude of Indian shippers lately, hence the margin between River Plate and Indian seed values may not contract much further for some time or until increased Indian competition sets in under a greater weight of supplies. Seed prices at about 35*l*. 10*s*. per ton for River Plate and 38*l*. 10*s*. for Calcutta are but little below the figures ruling at the close of June last. The cost of freightage is considerably less than it was a few months ago, but the tendency of freights is now somewhat uncertain, chiefly under political apprehensions. Current prices for most seed-oils are still too high to encourage consumption, and although they may show a good deal of resistance over the end of this season, it is certain that a considerably lower level of values will be established in the course of next year. There is also every indication of efforts being made to develop the cultivation of linseed and other products under the high prices obtainable. The fall in prices for the present has, however, been checked, and the fact is worth noting that the severe slump in tallow prices in July, which was not without effect on seed-oils, was followed this month by a recovery of 15*l*. to 20*l*. per ton. There has been a substantial rally in cotton-oil and also rape-oil from the lowest seen in July. The fact that the Continental and American makes of linseed-oil have been appreciably increased is reflected in our decreased exports of this commodity. The shipments from Hull from January 1 to August 1 amounted to 15,700 tons, compared with 18,300 tons for the corresponding period of last year, although the United Kingdom exports for seven months give a total of 33,051 tons, compared with 31,590 tons and 18,883 tons respectively in the same period in 1919 and 1913. Our total imports of linseed for seven months were 216,251 tons, compared with 1,303,862 quarters in 1919, while those of cotton-seed amounted to 271,489 tons, against 204,871 tons last year. There is thus a considerable increase in cotton-seed supplies, the stocks of which at Hull on August 1 were 28,205 tons. The receipts of soya beans have remained very small, although showing some increase against last year. Of nuts and kernels for oil pressing no less than 272,302 tons were imported in seven months, against 241,834 tons and only 44,824 tons respectively in the same period in 1919 and 1913. The latter returns are particularly striking, as indicating the vast development of manufacturing operations, chiefly in foodstuffs. The handling of such raw materials by home crushers has been enormously increased. Our re-exports of nuts and kernels for oil-pressing are still negligible; in fact still less than prior to the war, but they are capable of a considerable expansion later on through the merchant trade.

"Approved" Educational Institutions.

We gave last week (p. 88) a list of the educational institutions which have been approved for the curriculum of students for the Qualifying examination of the Pharmaceutical Society. The Ministry of Education has now issued the following circular, from which it will be seen that the list of institutions where instruction in Part II. subjects will be obtainable is not likely to be greatly extended. The circular, which has been sent to local education authorities and technical schools, is as follows:

1. The Pharmaceutical Society of Great Britain have now decided to divide their Qualifying examination into two parts, the subjects of Part I. being chemistry, botany, and physics, and the subjects of Part II. being pharmacy, materia medica, and other technical subjects. The Society will henceforth require that students who offer themselves for the Qualifying examination shall have pursued an approved course of study in an institution approved by the Society.

2. As regards technical schools and colleges, the Board are informed that the Society recognise and approve, for the purposes of Part I. of their examination, all those institutions which are already recognised by the General Medical Council.

3. Special considerations, however, arise in connection with Part II. of the examination. The efficient teaching of the subjects of this part of the examination entails considerable expenditure on equipment and stores, and for certain subjects the appointment of a specially qualified teacher. The Board understand that the Society have approved courses preparing for Part II. of their examination in nine technical schools and colleges in various parts of the country, and that in these institutions alone provision can be made for 700 students, a number which is largely in excess of the number who annually qualified in pharmacy before the war.

4. In these circumstances the Board do not propose to recognise, under their regulations, any course in the subjects of Part II. of the Pharmaceutical Society's Qualifying examination unless the Pharmaceutical Society have previously approved the course for their own purposes.

Curtailing Chemists' Rights.

The interests of chemists are likely to suffer considerably through the provisions of the Proprietary Medicines Bill if local associations do not succeed in "gingering" the Council of the Pharmaceutical Society to take an active part in procuring the modification of the Bill. A correspondent points out that it is likely that if the definition in the Bill of "proprietary medicine" is not altered, many "known, admitted, and approved remedies" will be included, which means that the sale of some of these remedies will be made more difficult through the intervention of the Ministry of Health. The definition referred to is as follows:

The expression "proprietary medicine" means any medicine which is held out by advertisement, label, or otherwise in writing, as efficacious for the prevention, cure, or relief of any malady, ailment, infirmity, or disorder affecting human beings, and—

(*a*) which is sold under a trade-name or trade-mark to the use of which any person has or claims or purports to have an exclusive right; or

(*b*) of which any person has or claims or purports to have the exclusive right of manufacture or for the making of which any person has or claims or purports to have any secret.

Many chemists make a series of "known, admitted, and approved remedies" for which proprietary rights are not, of course, claimed, but it is not unusual to place on the labels of the series some brand-name—*e.g.*, "Anchor Brand." Under the definition it would appear that this would be selling the article "under a trade-name," so that the medicine would be a proprietary article under the Proprietary Medicines Bill while being non-proprietary as regards the Medicine Stamp Act. Our interpretation may be incorrect, but the danger of curtailing chemists' privileges under the Medicine Stamp Act should be sufficient reason for making sure that definition does not include the class of "known, admitted, and approved remedies." Inclusion would mean a heavy fee for the registration of these remedies with the Ministry of Health.

Hypophysial Extract.

A Retrospective Study of its Physiological Standardisation.

By E. Hercod.

A considerable number of papers have been published during the last decade on physiological standardisation, as applied to the products derived from suprarenal glands, ergot, cannabis, digitalis, strophanthus, etc., but comparatively little has been written on the standardisation of hypophysial extract, notwithstanding the prominent position which the latter occupies amongst therapeutic agents used in obstetrics and gynæcology. It is, however, not without interest to follow the progress which has been made in this direction since Hamilton described his original method. It is proposed therefore to summarise the various methods adopted for determining the strength of hypophysial extract and to examine the factors which may militate either for or against them.

The first method, that of Hamilton (Collected Papers from the Research Laboratory, Parke, Davis & Co., Vol. I., 1913), was based on the fact that consecutive injections of the extract under rigidly defined conditions increase the blood pressure of an anæsthetised dog to the same degree, this increase being registered on a kymograph. The standard of reference adopted by Hamilton is the desiccated, defatted, and finely pulverised gland, 1 gramme of this powder representing 20 grammes of fresh substance. One-tenth of a gramme is subjected to trituration in a mortar, with successive quantities of acidulated water, so as to obtain 100 c.c. of solution. One c.c. of this solution (representing 0.001 gramme of powder, or 0.02 gramme of fresh substance) constitutes the standard dose. The animal employed is a dog of about 10 kilos. weight; the normal height of its blood pressure is recorded first, then the height to which the injection of 1 c.c. of the standard solution increases this pressure; finally, one injects that quantity of the extract of unknown strength which is supposed to contain the same quantity of active substance. If the concentration of the latter is such that 100 c.c. represent 20 grammes of fresh substance, the dose to be injected is 0.1 c.c., which, corresponding to 0.02 gramme of fresh gland, will thus determine the same rise of the blood pressure as 1 c.c. of the standard. The unknown extract is then either diluted or concentrated according to whether the rise recorded is more or less pronounced than that caused by the standard, until 0.1 c.c. gives the same reaction as 1 c.c. of the standard.

According to Dale and Laidlaw the method just described has two disadvantages: in the first place, the waning of the pressor action and the increasing prominence of the primary depression, with injections subsequent to the first, constitute an important drawback to the use of that method. Carey and McCord ("Journ. of Pharmacol. and Exp. Ther.," Vol. IV., 1912-1913) have also observed that the rise in pressure diminishes with each injection until a fall in pressure occurs. They admit nevertheless that, in dogs, the second injection never fails to produce a sharp rise in pressure, and that it is only from the third injection onwards that the extent and duration of the rise lessens progressively. They attribute this phenomenon to the fact that when the blood becomes sufficiently saturated with pituitary extract its constricting action on the peripheral vessels is converted into a dilating one. Dale and Laidlaw have further pointed out that the degree of pressor effect produced, in different individuals of the same species by equal injections of the same extract, varies widely; they admit on the other hand that the difficulty of the declining effect of successive doses in the same animal may to a certain extent be overcome, and that in a cat, for instance, one can rely on seeing a difference between the effects of 0.2 c.c. and 0.15 c.c. of a 10 per cent. hypophysial extract (=0.015 and 0.02 gramme fresh substance). As to the standard chosen by Dale and Laidlaw, it should be borne in mind that the pituitary body from which the standard is obtained may vary in activity under the influence of various factors; under these conditions, the standard adopted by Hamilton, constituted as it is by an element which is not always identical, affords but an unstable basis of comparison, and for this reason his method is not absolute, but essentially comparative.

Dale and Laidlaw, in seeking for a method which would overcome or minimise the above sources of error, have adopted a method which consists in determining the activity of hypophysial extract on the uterine horn of the young virgin guinea-pig; this organ is very sensitive, even to infinitesimal doses of extract, and relaxes completely on washing out the solution. As a matter of fact, Dale and Laidlaw have found that a dose of hypophysial extract corresponding to from 0.001 to 0.002 gramme fresh substance is sufficient to cause the uterus to rise to its maximal tonus. The results obtained by this method seem to justify the authors' claim that, though not ideal, it permits of detecting differences of activity which escape recognition by the blood-pressure test, and constitutes, therefore, an advance on Hamilton's method. Experience shows that young animals weighing not more than 350 grammes give the best results; the uterus of older animals is liable to be too sensitive and to exhibit too much automatic rhythmic contractions. The animal is killed and bled out as completely as possible, a horn of the uterus being then removed by cutting through the broad ligament, close to it, along its entire length; the incision is carried forward so as to excise the ovary as well, which is left attached to the uterus by the fold of broad ligament in which the Fallopian tube runs. The method consists in suspending the organ isolated in Ringer's solution heated at 40° C., its lower end being fixed to a pin sealed at the bottom of the vessel containing the Ringer's solution; a small hook is then passed through the upper end of the organ, the hook being attached to the shorter arm of a lever, the long arm of which bears an ink writing point which registers on the kymograph the curves caused by the contraction of the uterus. The manipulation and immersion of the uterus in the Ringer's solution cause as a rule a strong contraction; but after 15 to 30 minutes it relaxes again completely, and the standard solution is added to the bath, the initial dose being 1/80 c.c. to 1/100 c.c. When the dose which gives the desired smooth rise to maximal tonus has been found, the Ringer's solution is changed and the operation is repeated with the extract to be standardised, *i.e.* one determines the dose of the latter which produces the same curve as the standard.

The standard adopted by Dale and Laidlaw is an extract made by boiling the fresh and finely pounded posterior lobe with acidulated water, so as to obtain a 10 per cent. or a 20 per cent. extract of fresh substance. This standard as may be seen, is practically the same as that adopted by Hamilton, and presents, consequently, the same source of error due to the varying proportion of active substance contained in the lobe employed. As regards the value of the uterus as test organ, Dale and Laidlaw confess that, exquisitely sensitive as it is, there is nevertheless some difference in its automatic activity at different times of the year; it is said to be more responsive during the winter. Furthermore, uteri exhibit considerable differences as regards the length of time during which they give regular responses; it has also been noticed that when long series of doses of the extract to be standardised are introduced into the bath at short intervals, the uterus gradually loses is sensitiveness; finally, certain uteri are less responsive than others and, for this reason, are to be discarded. As may be seen, this method involves a number of variables which would seem to exclude the possibility of an absolutely accurate standardisation; this is admitted by Dale and Laidlaw, who claim simply that the action on the uterus may be adopted as a criterion of the general activity of hypophysial extract, their method being essentially comparative.

Dale and Laidlaw's method has been further investigated by Roth ("Journ. of Pharmacol. and Exp. Ther.," Vol. V., 1913-1914), who, after a long series of experiments, comes to the conclusion that "the isolated uterus of the virgin guinea-pig is well suited for examining pituitary products" for the following reasons: "The contraction

caused by pituitary extract can be obtained by using very high dilutions, and is always the same in character when using either weak or strong solutions. The characteristic contraction occurs at the conclusion as well as at the beginning of an experiment. The irritability of the isolated uterus, although increasing somewhat after being used for several hours, is not materially changed. The relaxation of the organ and its return to normal are usually prompt." The author has thus adopted Dale and Laidlaw's method in its main lines, but he has completed same in introducing a considerable improvement—*i.e.* in replacing the varying "gland-standard" by a new standard which remains constant and identical. This standard is constituted by a solution of B-iminazolylethylamine hydrochloride 1 : 20,000,000. This substance, which has been isolated from ergot by Barger and Dale, can also be obtained from histidine or from iminazolylproprionic acid, and has the following definite formula :—

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CH — NH\
C —— N/CH
CH2-CH2-NH2
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According to the investigation of Dale and Laidlaw, it contracts the uterus of the virgin guinea-pig in as high a dilution as 1 : 250,000,000. The selection of a constant standard confers upon Roth's method a much greater accuracy than that possessed by the previous ones, and this is no doubt the reason why the United States Pharmacopœia has adopted same as the official method for testing hypophysial extract.

A new and most original method has been devised recently by Spaeth ("Journ. of Pharmacol. and Exp. Ther.," April 1918), a method which is built on the use of test organs and a standard quite different from those which have been employed up to now, and which its inventor claims to eliminate the factor of individual variation that is the main drawback of the methods just outlined. On studying the effects of certain physiological and chemical stimuli on the melanophores of *Fundulus Heteroclitus* (Killiefish or mummiechog), Spaeth came to the conclusion that they must be considered as functionally modified smooth muscle cells. On immersing a scale with expanded melanophores in a pituitary solution the melanophores contract completely, the time required for the completion of the contraction being a function of the concentration of the extract. The method depends on the time required for the complete contraction of a group of melanophores, (1) by a standard of contracting solutions, (2) by an hypophysial solution of unknown concentration.

The standard contracting solution selected by Spaeth consists of a mixture of 2.5 parts of 0.1*N* sodium chloride + 1 part 0.1*N* potassium chloride at 22° C., neutral to neutral red. As a matter of fact the author discovered that melanophores taken from living fish contract completely in a 0.1N solution of potassium chloride, being at the same time seriously injured; the addition of sodium chloride acts as a preservative of the melanophore, which, however, remains reversible by potassium chloride; furthermore, the time required for a complete contraction in 0.1*N* potassium chloride may be lengthened at will by diluting same with sodium chloride. Spaeth removes thirty to fifty scales from one side of a living fish and immerses them in 0.1*N* sodium chloride solution, which causes the melanophores to expand fully within fifteen to twenty minutes. Half a dozen adjacent scales are then removed from the sodium chloride solution and simultaneously immersed in the standard solution, in which the melanophores begin to contract in the course of thirty seconds to one minute; the scales are watched and grouped in pairs of two such units as require the same length of time for a complete contraction of all the melanophores. This procedure gives pairs of physiological units which are known to behave identically under uniform conditions. The paired scales are then returned, one pair at a time, to 0.1*N* sodium chloride, in which the melanophores again expand completely. Finally, the comparison of the standard and unknown pituitary extract is made by using matched pairs of scales until the reaction time of three successive pairs is the same. The author suggests as a uniform standard for pituitary extract an aqueous solution which when diluted with equal parts of 0.2*N* sodium chloride will contract a group of melanophores in the same length of time as required for the contraction of a comparable group of melanophores in the standard solution of sodium and potassium chlorides. Spaeth admits that one may object to his method that the relation of melanophores to the uterus is so remote that the action of pituitary extract on melanophores would give little indication of its action on the uterus; he emphasises, however, the fact that commercial hypophysial extracts which were supposed to possess the same physiological activity were found, by his method, to vary widely, which he attributes to the greater accuracy of his technique.

It may also be objected that the constrictive action of potassium chloride and pituitary extract might be due to two quite unrelated physiological causes, so that the relative sensitivity to potassium chloride and pituitary extract might vary independently. As to this point, however, Spaeth states that melanophores which react slowly to potassium chloride exhibit a corresponding lack of sensitivity to hypophysial extract.

The Economic Resources of Burma.

X.—Raw Materials.

We may fittingly conclude this series of articles with an abstract of a monograph on the material resources of Burma by Sir Harvey Adamson, K.C.S.I., lately Lieutenant-Governor of Burma, which appeared in a recent issue of the "Bulletin of the Imperial Institute." The prominent part that Burma takes in the production of raw materials is dealt with at length by the author, among the subjects being the cultivation of rice, sesame, millet, ground-nuts, cotton, maize, wheat, sugar, tobacco, chillies, rubber, tea, betel, etc. Sesame seed, it appears, is second to rice in cropped area. Early sesame, sown at the beginning of the rains and reaped three months later, covers 855,530, acres, and is often followed by a second crop of millet, beans, or rice. Late sesame, sown a few months later, covers 361,242 acres. Sesame is confined almost entirely to the dry zone, and the average outturn is 200 lb. per acre. The oil, extracted by crushing, is used for cooking purposes and the oil-cake as food for cattle. Burma does not supply her own needs in this commodity, but imports, chiefly from India and partly from the Straits Settlements, a yearly average of 150,000 cwt. of seed and 30,000 gallons of oil. Ground-nut covers an area of 216,378 acres, all of which, except about 3,000 acres, is in the dry zone. The yield is 1,000 lb. per acre. The exports are: 1911-12, 61,848 cwt.; 1912-13, 307,587 cwt.; 1913-14, 560,240 cwt.; 1914-15, 41,758 cwt.; 1915-16, 1,780 cwt. It is only within the past twenty years that the ground-nut has come into prominence as a product of Burma. Ground-nut oil is largely consumed, and a considerable oil-crushing industry has developed. In 1911-12 the net import exceeded 2,000,000 gallons, but it is now reduced to about a third of that figure. The export of oil was, in 1911-12, 86,000 gallons, and it has now reached 300,000 gallons. An oleo-resin, called gurjun oil in India and kanyin-si in Burma, is obtained from the kanyin tree (*Dipterocarpus turbinatus*). It is largely collected and, to some extent, exported to India. Watts says that it has been used in Europe as a varnish with good results, and that it is reported to be a useful ingredient in lithographic ink. It has also been employed as a substitute in balsam of copaiba. [Gurjun oil is common on the London market, and is frequently used as an adulterant of copaiba.—Ed.] This oleo-resin should not be confused with "Chinese wood oil," which is also known as tung oil.

Rock damar is obtained from the Thingan tree (*Hopea odorata*). It yields a yellow damar, used as varnish, which is of considerable value, but the exports are small

and not recorded. There is a damar also known as pwenyet, made by bees in a funnel-shaped opening at the mouth of their hives, and is used chiefly for caulking boats. The out-turn stated in the "Forest Report" for 1915-16 is 18,000 lb.

Myrabolans are plentiful in Burma, but a market has not yet been found for them. They are inferior to Indian myrabolans in having non-tannins in excess. They have been examined by the expert leather chemist at the Allahabad tannery and pronounced to be a useful tanning material in conjunction with babul bark. Pine forests are found in various parts of Burma, but especially in the Shan States and Chin Hills. They consist mostly of *Pinus Khæsya*. In 1896 Professor Armstrong examined specimens of oil distilled from the *Pinus Khasya* of Burma, and concluded that it corresponded in properties with French oil of turpentine, and was of high quality. The resin of *Pinus Khasya* from the Southern Shan States was examined in 1911 in the laboratory of the Forest Research Institute, and Professor Armstrong's results were confirmed. No attempt, however, has yet been made to manufacture turpentine in Burma. For an account of the distribution of pine trees in Burma and the results of examination of the turpentine and rosin of *P. Khasya* at the Imperial Institute see Bulletin (1917, 15, 544). For the purpose of obtaining a tanning extract from the bark of mangroves a factory on a small scale was established several years ago in Rangoon, but owing to want of expert supervision it was not successful. The forests contain many valuable tanning materials other than mangrove bark, but the possibility of utilising them has not yet been fully investigated. The betel palm covers 33,815 acres and the betel vine 5,337 acres. The latter is found in all districts and the former chiefly in the wet zone. The nut of the areca or betel palm, with lime and the leaf of the betel vine, is chewed as a stimulant by men and women in Burma. The province does not supply its own requirements. The average import of the nut is 42,000,000 lb., chiefly from India, but partly from the Straits Settlements, and vastly exceeds the export, which is about 2,000,000 lb. per annum.

Chillies are grown as a field crop in Burma, chiefly in the dry zone, the acreage being 77,195. The yield per acre is forty-five standard, or nine-gallon, baskets, or, say, 1,600 lb. The exports were: 1911-12, 2,864,195 lb.; 1912-13, 3,318,560 lb.; 1913-14, 3,527,363 lb.; 1914-15, 8,925,578 lb.; 1915-16, 1,914,694 lb. The imports from India average 4,000,000 lb. a year. Lac is found in considerable quantities in many parts of Burma. The exports of stick lac and shellac from Rangoon in the four years ended in 1906-7 averaged 27,300 cwt. a year. Licences are issued free of charge for the collection of lac from forest land for trade purposes. A royalty of r.1 (1*s.* 8*d.*) per cwt. on stick lac and r.1-4 (2*s.*) per cwt. on shellac is levied on export by sea from Burma. The licences contain the conditions that no trees shall be felled or branches cut in the process of collection, and that a portion of living lac must be kept on each tree from which lac is collected. But, owing to deficiency of establishment, no real attempt has been made to enforce these conditions. A shellac manufactory was started in Rangoon a few years ago, but owing to shortness of material it was not successful. It is probable that if attention were paid to cultivation, and if destructive methods of collection were prohibited, a greatly increased outturn could be obtained. The export figures are: 1911-12, 1,805 cwt. stick lac, 6,091 cwt. shellac; 1912-13, 9,454 cwt. stick lac, 7,634 cwt. shellac; 1913-14, 6,439 cwt. stick lac, 4,068 cwt. shellac; 1914-15, 2,971 cwt. stick lac, 836 cwt. shellac; 1915-16, 19,346 cwt. stick lac, 93 cwt. shellac. It is a curious fact, indicating the lowness of revenue yield of the forests, that the value of lac, the deposit of an insect, exported annually from India is nearly equal to the total revenue of the Indian forests.

The German Potash Syndicate expect to obtain a concession to work potash mines in Spain and to manufacture potash salts in that country.

Indian Industries.

III.—Lemongrass Oil.

In the recently issued "Handbook of Commercial Information for India," by Mr. C. W. E. Cotton, I.C.S., Collector of Customs, Calcutta, reference is made to the lemongrass-oil industry, in the course of which it is stated that the cultivation of *Cymbopogon flexuosus* is an industry of considerable promise in Southern India. The distillation may be described as a monopoly of the West Coast of the Madras Presidency, the main producing areas being the native States of Travancore and Cochin and the southern part of the Malabar district. Lemongrass is both wild and cultivated. The hillsides on which it flourishes are fired in January. The first crop is ready to be harvested in July, and the season for distillation extends to October, furnaces and stills being set up in the neighbourhood of the plantations. The method of distillation is generally crude, and the resultant oil highly coloured, and so adulterated that the citral content seldom exceeds 50 per cent., compared with 83 per cent. in the pure article. The trade, which was inconsiderable until the beginning of the present century, received a great impetus about 1903-04, but the temptation of high prices encouraged crude methods of distillation and subsequent adulteration, and when the demand in Europe was discovered to be unequal to the absorption of the quantity which Travancore and Malabar were prepared to export, a fall in prices which followed made distillation scarcely profitable. There was some revival again prior to the war, both in prices and in the volume of the trade, and private efforts, supplemented by those of the Travancore Darbar, to obtain a better quality of oil have proved that there is a steady and increasing demand in Europe and America for the purer product which is yielded by redistillation. Travancore oil used in pre-war times to be shipped either from Aleppy or Cochin, but no export statistics are available for the former port. The quantities that went forward from ports in British India—mainly Cochin—from 1913-14 onwards, are shown in the following table:

Quantity and Value of Lemongrass Oil Exported from 1913-14 Onwards.

Year	Quantity	Value
	Gallons	£
1913-14...	47,522	67,955
1914-15...	27,796	37,914
1915-16	31,700	70,102
1916-17... — ...	34,993	32,044
1917-18	27,009	25,944
1918-19...	17,049	22,181

The principal pre-war destinations were France, which accounted for more than 50 per cent. of the total, Germany, the United Kingdom, and the United States, and the war has not yet made any material alteration in the distribution of the trade, except that Germany has been eliminated and a new market apparently found in Switzerland. The unit of sale on the West Coast is a dozen bottles of 22 oz. each, the unit in Madras being the lb. Shipment is usually made in cases containing a dozen bottles, or in drums containing the equivalent of 20, 23, 45, or 60 dozen bottles.

Compound Medicines.—Dr. Beverley Robinson (New York) writes in the "British Medical Journal" on the value of compound tincture of bark, or of Warburg's tincture, in malaria. In the ordinary tertian type, when relapses occur, bark is perhaps most effective, if given in sufficient and frequent doses, such as one teaspoonful every two hours, for a day or two, and, later, less often. For forms of malaria contracted in tropical countries, Warburg's tincture or extract in capsules is sovereign. It is essential, he adds, to have either preparation made by a thoroughly reliable chemist.

Trade Report.

42 Cannon Street, E.C. 4, Aug. 26.

The general business tone continues depressed, with buying strictly hand to mouth, as conditions do not warrant otherwise, in view of the international political situation and the threatened miners' strike. The latter is, however, looked upon as a "bull point" by the chemical trade, as, should the strike involve other sections of labour, supplies of raw materials would be held up indefinitely. As many dealers hold stocks of chemicals which show a loss, there is more disposition this week to hold off the market in the hope of an improved demand later. There have been a few inquiries for chemicals from Japan this week, and they are looked upon as a sign of returning confidence in that country. Should business materialise in that direction it would do much to stabilise some of the prices of pharmaceutical chemicals, for which Japan was a large buyer. Citric acid, tartaric acid, cream of tartar, chloral hydrate, amidopyrin, paraldehyde, theobromine, lactic acid, phenolphthalein, and sodium hyposulphite have moved in buyers' favour. Interest in crude drugs has centred in the auctions this week, but the demand was again extremely poor. Fenugreek-seed is again higher; canary is firm; cumin and caraway are steady. Pepper is a bright spot among spices, and is dearer. Cottonseed oil has sharply advanced; turpentine is lower. Cocoa-butter, glucose, and carnauba wax are cheaper. Menthol is steady.

Higher	Firmer	Easier	Lower
Canary-seed (good)	Cadmium	Amidopyrin	Areca
Coriander-seed	Nutmegs	Anise, star, oil	Cardamoms
Cottonseed oil	Wax, veget. (Jp.)	Bergamot oil	Cassia fistula
Fenugreek-seed		Camphor (Jp. ref. slabs)	Cinchona (W. Af.)
Pepper		Chloral hydrate	Citric acid
		Citronella oil (Cey.)	Coriander oil
		Cocaine	Cream of tartar
		Cocoa-butter	Formaldehyde
		Fennel oil (sweet)	Honey
		Glucose	Ipecacuanha
		Juniper-wood oil	Lactic acid
		Lemon oil	Mace (W.I.)
		Menthol	Myrrh
		Mint oil (Jp.)	Orange-peel
		Oxalic acid	Phenolphthalein
		Paraldehyde	Platinum
		Spike oil (Sp.)	Sarsaparilla: (Grey Jam.) (Native Jam.)
		Theobromine	Soda hyposulph.
			Tartaric acid
			Turpentine
			Wax, Carnauba

Cablegram.

New York, August 24. Business is quiet. Quicksilver is lower at $80.00 per bottle. Formaldehyde has been reduced to 47c. and hexamine to $2.15. Citric acid is also cheaper at 73c. per lb. Menthol is dearer at $7.50 per lb., and hydrastis is $6.20 per lb.

Agar-agar is steady, with sellers of No. 1 Kobe strip at 2*s.* 7*d.* and No. 2 at 2*s.* 5*d.* per lb. on the spot.

Albumen.—Prime Chinese egg is steady at 4*s.* 10½*d.* per lb. on the spot, and for August-October shipment sellers quote 4*s.* 9*d.* c.i.f.

Amidopyrin is about 2*s.* 6*d.* per lb. cheaper, importers offering at 42*s.* 6*d.* to 45*s.* per lb.

Anise is unchanged in price and slow of sale at 87*s.* 6*d.* per cwt. for Russian and 88*s.* 6*d.* to 92*s.* 6*d.* for Spanish.

Antimony is dull all round, in spite of the recent big reduction made for regulus by the chief home refiners. Small lots are obtainable at 52*l.* for ordinary and 55*l.* for high-grade material, but quotations vary considerably, according to quantity, down to 49*l.* for ordinary refined for 50-ton lots and more. For a similar quantity Chinese regulus is quoted 45*l.* a ton net delivered. Crude stands at 38*l.* to 40*l.* The present weakness is attributed by some to the fact that exports from China were rushed rather unduly in the earlier months of this year. English makers of white oxide of antimony quote 65*l.* delivered.

Arsenic.—There is rather more inquiry not only for Cornish but also for Grecian even on the part of interests identified with the handling of the former, the supply of which is reported to be limited. The current terms for Cornish powder are 74*l.* to 75*l.* delivered London.

Bismuth.—The price remains at 12*s.* 6*d.* per lb. There has been some inquiry recently for metallic bismuth from the Continent, but there is very little available of this here, and business is therefore difficult. Our supply of ore comes almost entirely from Bolivia, for the present at any rate. The receipts last month were about 46 tons.

Bromides.—With lower offers of potassium and sodium bromide from Germany and fair arrivals taking place, this market remains in a waterlogged condition, potassium offering at from 2*s.* 3*d.* to 2*s.* 6*d.* per lb., and sodium and ammonium at 3*s.* per lb.

Lower prices are noted for imported bromides, says the New York "Drug and Chemical Markets" (August 11). Resellers continue to undersell American manufacturers, for with the present small demand competition for the limited requirements is keen. The recent sharp reduction by domestic makers has not brought prices to the levels at which German goods are selling here. Sodium bromide is named by American makers at 65c. per lb., while it is possible to do better than 60c. for imported in outside hands on the spot. Potassium bromide is quoted at 70c. to 75c. for granular and crystals respectively, while resale material can be had at 65c. for either.

Buchu.—The exports from the Union of South Africa during May 1920 amounted to 24,783 lb. (11,147*l.*), against 15,479 lb. (4,171*l.*) for May 1919. During the five months ended May 1920 the exports were 72,519 lb. (30,683*l.*), against 83,958 lb. (18,027*l.*) for the corresponding period of 1919.

Cadmium is distinctly firmer, chiefly owing to the low American exchange, importers asking 7*s.* per lb. According to an American official report cadmium accumulates at lead-smelting plants to the extent of 350 to 400 short tons per annum, and some 750 tons are secured from the bag-house fumes, while the annual output at the electrolytic zinc-smelting plants represents some 200 tons, while the supply accruing from residues amount to 400 tons. Lithopone makers are producing about 75 tons per annum.

Camphor (Crude).—Spot sales of Chinese have been made at 5*s.* per lb., and for August-September shipment 4*s.* c.i.f. is quoted.

Camphor (Refined).—Japanese 2½-lb. slabs are the turn easier, spot offering at 6*s.* 10½*d.* per lb.

Canary-seed is firm for good Morocco, with sales at 167*s.* 6*d.* per quarter, and holders are now asking 172*s.* 6*d.*, but inferior qualities are difficult of sale and can be bought at 140*s.* to 145*s.*

Caraway-seed is steady, Dutch being quoted 37*s.* 6*d.* to 40*s.* and Morocco 22*s.* 6*d.* per cwt.

Chloral Hydrate is easier, duty-paid crystals offering at from 7*s.* to 7*s.* 3*d.* per lb. as to quantity.

Cinchona.—Further particulars of the auction of Java pharmaceutical bark to be held at Amsterdam on September 1 show that the 3,597 packages (3,225 bales and 372 cases) weigh 208,050 kilos. and contain the equivalent of 7,306 kilos. quinine sulphate. The weight of the Succirubra is 204,985 kilos. and the hybrid 3,065 kilos., 97,492 kilos. is root bark.

Citric Acid is lower, dealers offering at 4*s.* 6*d.* per lb. less 5 per cent., and even at a trifle less.

Cloves.—Zanzibar are steady, with spot sales at 1*s.* 7*d.* per lb., and for October-December delivery sellers quote 1*s.* 7*d.* per lb.

Cocaine.—Hydrochloride is easier inclined, and the quotation of 30*s.* per oz. could be eased for spot supplies. It will be seen that a large quantity of coca-leaf is to be offered at Amsterdam next week.

Coca-leaves.—Further particulars of the auction of Java leaf to be held at Amsterdam on September 1 show that the 6,401 packages (5,062 bales and 1,339 cases) have a total weight of 354,125 kilos., the total alkaloidal content being 4,899 kilos. The average percentage is 1.38. Seven

bales Peruvian weighing 1,150 kilos., with a total alkaloidal content of 9 kilos., will also be offered.

Cocoa-butter.—Sellers of prime English quote 2*s*. 9*d*. per lb.

Cod-liver Oil has been selling in fair quantity of late, the favourable rate of exchange with Norway facilitating purchases; the spot value of finest 1920 medicinal Norwegian oil is steady at 310*s*. per barrel, ex wharf London, for small lots, and slightly less to come forward.

Copper Sulphate.—The market seems in a topsy-turvy state, and reliable prices are difficult to obtain, these varying on either side of 40*l*. per ton f.o.b. Liverpool, less 5 per cent. for casks. Demand is limited.

Coriander-seed has been in good demand, and sales have been effected at 16*s*. 3*d*. up to 17*s*. 6*d*. per cwt. for good sound Morocco, being dearer.

Cotton-seed Oil.—The price of Egyptian crude closed on Wednesday at 77*l*., Bombay at 67*l*. net, naked, closed on Wednesday at 77*l*., Bombay at 67*l*. net, naked, and deodorised in barrels at 90*l*. ex mill. The market has been more active and very firm, a further sharp advance having been recorded for Egyptian crude oil.

Cream of Tartar is lower, 99- to 100-per-cent. powder offering at 260*s*., and 95-per-cent. at 255*s*. per cwt.

Cumin-seed sells slowly at 35*s*. to 40*s*. per cwt. for ordinary to good sifted Morocco. In the drug auction 14 bags sold without reserve at 32*s*. 6*d*.

Dill-seed.—Some odd lots have been cleared at 17*s*. per cwt.

Egg Products are steady but quiet. Chinese liquid hen-yolk offering at 85*s*. to 90*s*. per cwt. for old and 120*s*. to 125*s*. for new season's. To arrive, August-October and September-November is quoted at 105*s*. per cwt. c.i.f. Dried whole native is quoted at 1*s*. per lb., dried yolk at 10½*d*. to 11*d*., and sprayed whole egg at 1*s*. 10*d*. per lb. In the drug auction ten cases dried hen-yolk sold, without reserve, at 6*d*. per lb.

Ergot continues to be offered at a wide range of prices. There is plenty of inquiry, but not much actual business, as it is anticipated that prices will decline further if buyers continue to hold off. So far prices are unchanged, Portuguese offering at 15*s*. per lb. c.i.f., and Spanish at 16*s*. 9*d*. c.i.f. and upwards. The *Mylie* has brought 26 bags from Lisbon and 3 bags from Barcelona, and the *Yore* 15 bags from Lisbon.

Farina.—Japanese No. 1 is steady at 32*s*. per cwt. on the spot, and in Liverpool 31*s*. 6*d*. spot has been paid. September-November shipment is quoted at 31*s*. c.i.f.

Fennel-seed.—In the drug-auction 13 bags were retired at 33*s*.

Fenugreek-seed has continued to advance in price with a fair trade passing; 15*s*. 6*d*. per cwt. has been paid for Morocco quality.

Formaldehyde.—Market has eased in America; spot parcels of 40-per-cent. volume offering at round about 320*s*. to 325*s*. per cwt. in barrels.

Glucose is easier, American liquid offering at 57*s*. per cwt., duty paid.

Hexamine has eased in America, but spot price is unchanged at about 16*s*. per lb.

Lactic Acid is cheaper, importers offering B.P. at from 5*s*. 6*d*. to 6*s*. per lb.

Linseed Oil.—There has been but little set-back so far, while supply and demand are closely balanced. The market shows more resistance than some were led to expect, this being due in part to the firmness of raw material. Inquiries for September delivery seem a little more numerous. The London spot market closed quiet on Wednesday at 80*l*. 10*s*., and Hull at 77*l*. 10*s*. net, naked, ex mill.

Mace.—At auction 496 packages West Indian offered, and practically all sold at a decline of 1*d*. to 2*d*. per lb. under private prices.

Menthol is easier, with spot sales of Kobayashi-Suzuki at 36*s*. 6*d*. to 36*s*. per lb.

Nutmegs.—At auction 680 packages West Indian offered and about 600 sold at from ½*d*. to 1*d*. per lb. above the prices asked privately.

Olive Oil.—There has lately been a slight decline, due rather to the depreciation in the French exchange. So far as regards finest edible pure Provence oil, the price is maintained at about 23*s*. 6*d*. per gal.

Oxalic Acid is slightly easier, offering at from 2*s*. 4*d*. to 2*s*. 5*d*. per lb.

Paraldehyde is cheaper, importers offering at from 4*s*. to 4*s*. 6*d*. per lb., according to quantity.

Pepper is dearer, with sales of fair black Singapore at from 6¼*d*. to 6½*d*. to 6⅝*d*. per lb. on the spot. To arrive, sales include September-November and October-December shipment at 6⅝*d*. to 7⅛*d*. to 7*d*. per lb. c.i.f. Lampong is 7*d*., Tellicherry 7⅜*d*., and Aleppy 7¼*d*., all spot, all being slightly higher than last week White pepper is again dearer, the sales including Muntok at from 1*s*. 2*d*. to 1*s*. 3*d*. per lb., to arrive the sales include August-September shipment at 1*s*. 0¾*d*. to 1*s*. 1*d*., August-October and October-December at 1*s*. 0½*d*. to 1*s*. 0⅞*d*. per lb. c.i.f. Fair white Singapore has been sold on the spot at 1*s*. 0¾*d*. to 1*s*. 2*d*. October-December shipment has been done at 1*s*. 0¼*d*. c.i.f.

Phenazone is selling at from 20*s*. to 21*s*. per lb. on the spot.

Phenolphthalein is lower, importers offering at about 9*s*. per lb. on the spot.

Pimento is steady, with spot sellers at 4*d*. per lb.

Platinum.—As stated last week, the market was then very uncertain, due to the recent sharp rise, largely arising from speculative buying, and the price this week has again been substantially reduced down to about 26*l*. per oz. Palladium is, of course, lower in sympathy, and quite nominal near 25*l*. per oz.

Quicksilver.—The leading importers seem quite independent, notwithstanding the fact that Italian has been secured down to 20*l*. per bottle, at which further parcels could apparently be secured from dealers. There has been as yet no very important arrival from Spain, and the official price for this has been retained at 21*l*. per bottle, and dealers would thus ask a little more. A fair quantity of Italian quicksilver came in recently from Holland. A few tentative inquiries have come forward from the United States, including one for 1,000 bottles, but so far no actual business has transpired. The outlook is obscure, while the demand is upon the whole on the quiet side.

Shellac has been dull throughout, the spot value of usual standard TN Orange quality being 670*s*. per cwt.; fine Orange is 900*s*., fine seconds 800*s*., pure button 860*s*., cakey AC Garnet 580*s*., GAL 550*s*., and IG 530*s*. per cwt. For October delivery TN has been sold at from 605*s*. to 595*s*. to 605*s*.

Silver Nitrate.—The price quoted for crystals on August 25 based on a metal price of 61*d*. per oz. is as follows: In quantities of 25 oz., 3*s*. 8*d*.; 56 oz., 3*s*. 7½*d*.; 100 oz., 3*s*. 7*d*.; 250 oz., 3*s*. 6½*d*.; 500 oz., 3*s*. 6*d*.

Soda Hyposulphite is lower, importers offering pea crystals at about 33*l*. per ton in five-cwt. casks.

Tartaric Acid is flat and rather lower, offering at 3*s*. per lb. on the spot.

Theobromine is easier, the pure alkaloid offering at from 41*s*. 6*d*. to 42*s*. 6*d*. per lb., and the sodium salicylate at 24*s*. to 25*s*.

Thymol.—British make is unchanged at 47*s*. 6*d*. per lb.

Turpentine.—Considerable irregularity has been again in evidence, while the premium on spot delivery of American spirit has not only disappeared, but been turned into a discount. This would seem to be against the theory that anything like a collapse in prices is possible as the season progresses. Some little forward speculative interest is ostensibly under way, and, having regard to the general aspect of the market, it is obvious that the further fall in the American exchange has had considerable influence on the tendency. The spot market on Wednesday closed at 142*s*. 6*d*. per cwt.

Vanillin is offered at irregular prices, but in one quarter it is reported that orders have been refused at 65*s*. per lb.

Wax, Vegetable.—Carnauba is rather lower, fatty grey offering at 225*s*. and chalky at 222*s*. per cwt. *Japanese* wax is rather firmer, the spot value being 114*s*. per cwt.

Zinc Products.—There is very little doing in this section, and the tendency is inclined to be easy in view of the renewed marked weakness in raw zinc due to the slow demand from makers and the fear of the labour troubles. Zinc oxide stands thus as quoted by prominent makers: White seal 99.9 per cent. ZnO 70*l*.; green seal 99.8 per cent., 65*l*.; and red seal 99.7 per cent., 60*l*. a ton net f.o.r. Fair quantities have lately come in from Germany and Belgium. Zinc smelting companies in the latter country are gradually increasing their output, and find a steady outlet, especially in France. American advices state that rubber factories have been using a rapidly growing tonnage of zinc oxide. Some of the oxide is made by the same companies that also smelt the ore for slab zinc. The rubber-tyre industry, however, is now dull due to the great scarcity of suitable cotton fabrics.

London Drug-auctions.

Commercial Sale Rooms,
Mincing Lane, E.C. 3, August 26.

The drug sales were resumed to-day after an interval of two months, and, as will be seen from the table below, considerable supplies had accumulated. This especially applied to Sumatra benzoin, cardamoms, ipecacuanha, rhubarb, and sarsaparilla. The tone throughout was quiet, the demand being hand to mouth only. Cape aloes met a retail demand at about steady prices. Benzoin failed to sell, likewise cardamoms, of which a good selection offered. Calumba remains plentiful at low prices. Cannabis indica has been selling privately. Cassia fistula declined about 50 per cent. Dragon's-blood was in fair demand at steady rates. Elemi is plentiful and tending lower. Siam gamboge is steady but quiet. Honey was difficult to sell, even at a substantial concession. Ipecacuanha was stagnant, not a package being disposed of. Myrrh was about 2*l*. per cwt. cheaper. Nux vomica is still scarce. Orange-peel was quite neglected, even when offered without reserve. Rhubarb failed to sell, and genuine grey Jamaica sarsaparilla was 8*d*. per lb. cheaper, while Native red Jamaica declined 6*d*. per lb. Tinnevelly senna maintains its previous asking prices, although no business was done. Beeswax buyers had filled their wants privately. The following table shows the quantities offered and sold:

		Offered	Sold
Aconite-root	(brl.)	3	3
Aloes—			
Cape	(cs.)	84	19
Curaçao	(cs.)	90	12
Ambergris	(oz.)	65	0
Ammoniacum		3	0
Anise, star	(cs.)	86	0
Annatto-seed		122	0
Areca		110	0
Balsam Peru		3	0
Balsam tolu		37	0
Basil oil, sweet	(cs.)	3	0
Benzoin—			
Palembang		55	0
Siam		23	0
Sumatra		355	17
Black-haw-bark		10	10
Calumba		1306	63
Camphor (Ch. cr.)		95	0
Cannab. ind. (B'bay tops)		2	*2
" " (Cape)		12	*12
Cantharides (Ch.)		15	0
Caraway-seed		4	4
Cardamoms		972	9
Cashew-nuts	(cs.)	200	0
Cassia-bark		5	0
Cassia fistula		162	32
Chamomiles (Sp.)		20	0
Chicle		5	5
Chocolate	(cs.)	500	*300
Cinchona		345	55
Cinnamon-leaf oil			
(B'bay)		2	0
" " (Cey.)		10	0
" " (Seych.)		9	0
Citronella oil (Java)			
(drms.)		56	0
Coca-leaves (Bol.)		70	0
Cochineal		6	4

		Offered	Sold
Colocynth		23	18
Croton-seed		63	0
Cubebs		37	0
Cumin-seed		34	14
Cutch		15	0
Cuttlefish-bone		413	*9
Dill seed, ground	(brl.)	1	0
Dragon's-blood		44	18
Elder-flowers		5	0
Elemi	(cs.)	158	*15
Euphorbium		32	0
Fennel-seed		13	0
Frangula-bark		57	0
Galbanum		5	0
Galls		40	0
Gambier (cubes)		432	32
Gamboge		45	1
Guaiacum		37	0
Guarana		8	0
Gum acacia		78	25
Gurjun oil	(drms.)	50	0
Helonias-root	(bls.)	2	0
Henbane (Egy.)		82	1
Henna		40	0
Hen-yolk, dr.	(cs.)	10	10
Honey—			
Argentine		10	0
Australian		79	0
Brazilian		42	0
Chilian		70	0
Cuban		375	3
Hayti		29	22
Jamaica		714	50
Salvador		3	0
San Domingo		181	10
West African		17	0
West Indian		161	0
Insect-powder	(brl.)	1	1

* Sold privately.

		Offered	Sold
Ipecacuanha—			
Cartagena		16	0
East Indian		16	0
Matto Grosso		74	0
Minas		16	0
Kamala		15	0
Kino		2	0
Kola		190	0
Laurel-leaves		118	0
Lavender-flowers		9	9
Lime flowers		1	1
Liquorice-juice		25	0
Liquorice-shavings		2	2
Marshmallow-root		1	0
Mastich		5	2
Musk-pod	(oz.)	8	0
Musk-seed	(bx.)	1	1
Myrrh		92	10
Nux vomica		17	0
Olibanum		324	0
Orange-peel		116	0
Pistachio nuts		20	0
Pumice-stone	(bgs.)	8	8
Quassia-chips		36	0
Quince-seed		5	0
Rhubarb (Ch.)		141	2
Saffron	(tins)	5	0
Sage-leaves		32	0
Sal ammoniac	(cks.)	44	0
Sandarac		0	0
Sande, crude		5	0
Sarghien	(bgs.)	22	0
Sarsaparilla—			
Grey Jamaica		74	13
Sarsaparilla (cont.)—			
Honduras		12	0
Lima		20	0
Mexican		11	0
Native Jam.		80	6
Scammony-root		112	0
Senna and pods—			
Alex.		72	0
Tinnevelly		430	2
Simaruba		10	0
Stramonium		13	0
Styrax	(cs.)	25	0
Tamarinds—			
East Indian		252	0
West Indian		27	0
Thyme-leaves		1	1
Tonka-beans		10	0
Tragacanth		53	3
Turmeric		462	0
Wax (bees')—			
Abyssinian		100	0
Algerian		31	0
Benguella		11	*11
Cape		74	0
East African (various)		631	*25
East Indian		122	0
Jamaica		15	0
Madagascar		71	0
Mozambique		60	0
St. Lucia	(cs.)	1	0
Spanish		8	0
Zanzibar		826	*80
Wax, Candelilla		4	0
Wormseed	(bgs.)	25	0

* Sold privately.

The public demand at the drug-auctions has fallen off to such an extent of late that it was considered advisable at to-day's drug sale to omit the September auction, so that the next one will be on October 28.

Aloes.—Cape was extremely dull, five cases of good bright firsts selling at 85*s*. per cwt., being steady, and for four cases loose collected 60*s*. was paid. Eight cases firsts had been sold privately. Good seconds were obtainable at 80*s*. Twelve boxes of good livery Curaçao sold at 75*s*. per cwt., subject to seller's approval. Seventy-eight boxes, mostly dark and coarse, in another interest were retired at 95*s*.; four cases capey had been sold privately, the value of this description being 72*s*. 6*d*.

The exports from the Union of South Africa during May 1920 amounted to 57,679 lb. (1,333*l*.), against 78,450 lb. (761*l*.) in May 1919. During the five months ended May 1920 the exports were 240,261 lb. (4,519*l*.), against 575,056 lb. (5,913*l*.) for the corresponding period of May 1919.

Ammoniacum.—Two cases of fair small drop, slightly blocky, were bought in at 8*s*. 6*d*. per lb.

Benzoin was extremely dull of sale. Four cases of fair Sumatra seconds sold at 10*l*. 10*s*., and twelve cases of ordinary Sumatra thirds realised 7*l*. per cwt. Ten cases of good almondy firsts, with strong storax flavour, were retired at 12*l*. Of Siam, three cases fine loose small to bold biscuit almonds were held at 37*l*. per cwt.; three cases all bean size at 36*l*.; and four cases pea and bean size at 34*l*. per cwt.

Black-haw-bark.—Ten bales, slightly mixed with sand, sold at 1*s*. 7*d*.; badly ditto at 1*s*. 4*d*.; and slightly sea-damaged at 1*s*. 8*d*.; all on underwriters' account.

Calumba was steady, fifteen bags fair natural sorts selling at 35*s*., and for forty-eight bags, sea and country damaged, 15*s*. per cwt., subject to seller's approval, was paid.

Cardamoms.—Although almost one thousand packages offered, practically nothing sold. A single case of good bold slightly yellowish pale Ceylon-Mysore sold at 5*s*. 6*d*. per lb., being slightly under valuation. Six cases good decorticated *seed* sold at 2*s*. 6*d*. to 2*s*. 7*d*. per lb., subject to seller's approval, and several small oddments were disposed of.

Cassia-bark.—Five bales of water-damaged sold at 30*s*. for account of the underwriters; the sound value is 45*s*.

Cassia Fistula sold at about half the price previously paid, 15 cases West Indian realising 90*s*. per cwt. for fair pod, also part damaged and part wormy; a further 147 packages offered, and nine cases sold at from 80*s*. to 87*s*. 6*d*. for fair, part rattly Grenada pod; eight bags (all bags more or less gnawed by vermin) sold at 65*s*.

Chicle.—A bid of 1*s*. per lb. is to be submitted to the owner of five bags.

Cinchona.—A lot of 21 bales West African quill sold t 1s. 5s. per lb., and 10 bales red chips went at s. 7d. Two bales fair stout red quill sold privately t 2s. 6d. per lb.; 22 bales fair quill, sea-damaged, had een sold privately; 183 bales fair bright broken alisaya quill were held at 2s. 6d.

Colocynth.—A lot of 18 cases of slightly damaged urkey apple sold cheaply without reserve on account of hom it may concern at 1s. 1d. per lb.; sound value is s. 6d.

Croton-seed.—Twenty bags of fair Ceylon were limited t 60s. per cwt.

Cubebs.—Ten bags of fair, slightly stalky, were retired t 30l. per cwt.

Dragon's-blood.—Steady; six cases of good reboiled ingapore lump cut of fifteen offered sold at 29l. per wt., and three cases of pickings went at 16l. Nine cases ood thin *Red* sold at 16l. per cwt.

Gambier.—The value of sound *cubes* is 66s.; 32 bags ea-damaged sold without reserve on underwriters' account t from 25s. to 57s. 6d. per cwt.

Gamboge.—Fair Siam pipe, slightly blocky, is obtainble at 40l. per cwt.

Honey.—Only a few packages were disposed of at disinctly lower prices, including fine pale-set Jamaica at rom 82s. 6d. to 85s.; good liquid amber to pale-set and etting Jamaica in barrels, 77s. 6d. to 80s.; amber liquid, 70s.; darkish amber liquid, 65s. to 67s. 6d.; and mixed olours and fermented, 32s. 6d. to 35s. Of Hayti, 17 arrels sold, including good to fine pale, 87s. 6d. to 95s.; iquid amber, 80s.; and dark at 60s. Of San Domingo, 10 casks sold, including fine canary setting, 82s. 6d. per wt.

Ipecacuanha.—Not a package sold to-day. The prices asked for ordinary lean to good stout Matto-Grosso were rom 15s. to 17s. per lb., but there were no bids. Minas was obtainable in quantity at 16s., and Cartagena at 16s. Of East Indian, 19 bales were offered and bought in, the best obtainable bid being 14s. per lb.

Lavender-flowers.—Nine bales of fair French sold without reserve on account of whom it may concern at 45s. per cwt.

Liquorice-juice.—For 25 cases of Italian sticks packed in cardboard boxes, offered by order and on account of the Admiralty Marshal, 240s. per cwt. was wanted.

Liquorice-root.—Two bales of sticks in neat bundles sold without reserve at 88s. per cwt., and for a bale of liquorice shavings 15s. per cwt. was paid without reserve.

Mastich.—Two cases slightly water-damaged sold without reserve at 2s. 6d. per lb.

Myrrh was about 2l. per cwt. cheaper compared with the previous auction, 6 bags selling at from 14l. to 14l. 5s. per cwt. for fair, slightly blocky, Aden sorts, and 12l. 7s. 6d. for a bag of water-damaged.

Nux Vomica.—A lot of seventeen bags of ordinary small Madras was held at 70s. per cwt.

Rhubarb.—The public business consisted of the sale of two cases good bold round Shensi, with three-quarters pinky fracture, for which 11s. 6d. per lb. was paid. Medium to bold round wild Shensi, with three-quarters greyish fracture, is selling privately at 10s. per lb. Twenty-four cases Shensi were bought in, comprising bold round, three-quarter greyish fracture, at 10s., small round at 9s., and rough pickings at 10s.; 22 cases round horny High-dried were bought in at from 6s. to 6s. 6d. per lb.

Sandarac.—Five bags of dusty Morocco were held at 320s. per cwt.

Sarsaparilla.—Grey Jamaica sold at about 8d. per lb. lower, 9 bales of good fibrous selling at 3s. 6d., and 4 bales part mouldy and grease damaged at 3s. per lb. Of Native-Jamaica, 6 bales sold at 2s. 6d. to 2s. 7d. per lb. for fair red, being about 6d. per lb. cheaper. Lima-Jamaica was bought in at 3s. 3d., and 12 serons Honduras were retired at 4s. 6d.

Scammony-root.—For 32 bales of Alleppo (not seen on this market for several years past) a sporting bid of 2d. per lb. was made.

Senna.—Although nothing was disposed of previous prices were maintained, 8d. per lb. being wanted for ordinary small to medium yellowish Tinnevelly leaf, of which the bulk consisted, 6d. to 7d. for common dark specky, and 9d. to 11d. for middling to fair greenish. A few bales of Tinnevelly *pods* sold at 4¼d. per lb., being unchanged.

Styrax.—A lot of 25 cases was retired at 6s. per lb.

Wax, Bees'.—Thirteen barrels Jamaica were retired at 11l. 15s. per cwt. for fair red and brown mixed, and two casks at 11l. 12s. 6d., no bids being made; for six cases of good bleached Calcutta, 13l. per cwt. Sixty bags of Zanzibar had been sold privately.

Wormseed.—For 25 bales, 5s. per lb. was wanted.

Essential Oils Market.

There are few changes of importance to record; a small amount of business is passing, but quotations are nominal in the majority of cases. The economic outlook at home, together with the international situation abroad, may not be conducive to an early resumption of trade, nevertheless, dealers are hopeful that buyers will come along when the holiday period is at an end. Star anise oil is slightly easier; the Sicilian market is very quiet, bergamot and orange oils having receded slightly. Lemon is irregularly quoted, but the price is substantially unchanged. Cedarwood may probably show a firmer tendency following higher quotations from the United States. Ceylon citronella is easier, but Java is unchanged. Coriander is lower, and Japanese mint is fairly steady. Bourbon geranium to arrive is quoted easier, and Spanish rosemary shows considerable irregularity; spike oil is on the easy side both for spot and to arrive. Aromatic and synthetic chemicals do not appear to be in much demand, and quotations are for some articles readily shaded.

Anise, Star, is quiet and easier, with Chinese "Red Ship" brand offering at 4s. 3d. per lb. on the spot. To arrive July-September shipment is offered at 4s. 3d. and September-November at 4s. 2d. c.i.f.

Bergamot.—The forward position is easier for 37-38 l.a. following the decline in the Italian rate of exchange, and 32s. per lb. c.i.f. is about the price. On spot 34s. represents a fair value, with holders in some directions willing to accept less.

Bois de rose (Femelle).—It is stated that there are fair stocks in Paris, but imports to this country have been largely for consumers. Quotations are somewhat irregular, but actual sales have been made at 49s. per lb. and upwards, according to seller.

Camphor.—Japanese essential *brown* has been in fair demand this week. Supplies are said to be short, and spot holders quote 150s. to 160s. per cwt. in drums, with lowest forward quotations at 145s. For *white* in cases the spot value is about 175s.

Caraway is unchanged, but business has been done at 11s. per lb. for crude and 12s. rectified. The forward prices quoted are about 1s. per lb. less. Opinions expressed regarding the harvest of caraway-seed which is now in progress seem to indicate that a short crop is expected.

Cassia.—Spot 80-85 c.a. is unchanged at 8s. per lb.

Cedarwood on spot is unchanged, with sellers at 3s. 9d. to 4s. per lb. In the United States the equivalent of 4s. per lb. is the lowest figure quoted.

Cinnamon.—Finest Ceylon is quoted at from 12s. to 15s. per oz., according to seller, for spot lots. B.P. oil is obtainable at 95s. per lb. Ceylon leaf is steady at about 10d. per oz., with c.i.f. quotations at 7d. to 8d. per oz. In the drug-auction nine drums of Seychelles were retired at 10½d. per oz., and ten cases Ceylon were held at 10d. Two cases of "high-grade pure" from Bombay were limited at 13s. per lb., the eugenol content being 91 to 92 per cent.

Citronella.—Ceylon is easier, with spot sellers at 2s. 9d. to 2s. 10½d. per lb., and offers are said to have been made at 2s. 6d., but this is not confirmed. Java is steady at 5s. 1d. to 5s. 2d.

Coriander is lower. Spot sellers of B.P. prime quality quote 115s. to 120s. per lb. and upwards.

Fennel.—Spanish sweet is easier at 11s. per lb. spot.

Geranium.—Bourbon from Paris stock is quoted about 39s. per lb., but the spot price is nominally unchanged at 40s. per lb. Algerian has sold at 42s.

Guaiac Wood.—Spot sellers quote 30s. per lb. as the price.

Juniper-berry.—B.P. oil is unchanged at from 16s. to 17s. per lb. Wood is easier at 4s. 9d. per lb. for spot.

Lemon is unchanged at last week's prices, 5s. 6d. to 6s. 6d. per lb. being about the spot quotation. Offers for forward shipment include one of 6s. 3d. per lb. c.i.f. for finest, which is easier for this brand.

Lime is nominal at 6s. 6d. per lb. for distilled and 26s. for hand-pressed.

Marjoram.—Some interest has been shown for spot lots at 7s. to 8s. per lb., according to quantity.

Mint.—Sales of Japanese dementholised were made towards the close of last week at 8*s.* 3*d.* per lb., being easier, but sellers are now asking 8*s.* 6*d.* for Kobayashi-Suzuki.

Orange is very dull, and the spot tendency is easier, with sellers at 34*s.* to 40*s.* per lb. for Calabrian and 32*s.* 6*d.* to 40*s.* for West Indian. Calabrian bitter is quoted at 28*s.* per lb.

Palmarosa is unchanged at 24*s.* per lb. for spot.

Peppermint.—A New York advice dated August 11 states that business is at a standstill, both sellers and buyers waiting news regarding the new crop price, which is expected to open at about $5.00 per lb. for natural oil in the Middle West. Distillation has started early this season, and buyers everywhere are holding off in the meantime.

Rosemary is dull and steady, although the majority of holders are not inclined to sell under 4*s.* 9*d.* to 5*s.* per lb. Spanish oil, guaranteed pure, is, however, obtainable in round lots at 4*s.* per lb. spot.

Spike.—French is quoted on spot about 15*s.* per lb., and Spanish is easier at 10*s.* 6*d.* to 12*s.* per lb., according to seller. On the basis of prices coming forward for new crop Spanish 8*s.* 6*d.* to 9*s.* per lb. to arrive would be accepted.

Aromatic and Synthetic Chemicals.

Coumarin is unchanged at 30*s.* to 32*s.* per lb., but lower quotations have been mentioned. Diphenyl oxide is steady at from 11*s.* to 12*s.* per lb. Safrol is easier at 5*s.* per lb. for spot. Terpineol is quoted variously at from 5*s.* 3*d.* to 6*s.* per lb.

German Drug and Chemical Markets.

"August 1914—beginning of the world war;—August 1920, and still there is war," is the introduction to the August market report of a leading Hamburg wholesale drug-house, which proceeds: "The German people is being threatened, oppressed, and robbed by over-powerful enemies; it is left to its own fate, and now stands alone. Middle-class and labourers, Germans and others should brush aside party strife, and under Government leadership be united in the one endeavour to find a way of settling by peaceful means the existing differences between the peoples. The wish to bring about an understanding, and to effect a reconciliation, should be the basis for a better future, and if the heart and brain cannot, or refuse to, adopt this course, then stomach and purse will make men feel it the more acutely, and certainly the last two factors are undoubtedly the most sensitive barometer and regulator of the world's sentiments. The unsettled state of affairs and the absence of a proper relationship between manufacturers and retailers is making itself felt in the drug and chemical markets. Already in the beginning of July attention was drawn to the possibility of former events repeating themselves as a result of a renewed depreciation of German currency, and in fact appearances now point this way. The price of coal and wages show no change. It is only under compulsion that the chemical manufacturers, and, indeed, other manufacturers and business men, have undertaken to bear themselves the burden of the Government tax deduction. [This refers to the measure whereby 10 per cent. of the amount paid in wages has to be retained by the employer and handed to the Government; this step was taken in order to ensure payment of taxes by workmen and to provide revenue.—Ed.] But this step merely implies a further charge on the price of the finished product. Taking into consideration the whole population, including those not classed as workmen, yet whose incomes closely approximate those of the working classes, it has been found that nearly 90 per cent. of the population can be included in the term "working class," and the greater part of the total output of this group of 90 per cent. is destined for its own uses. The Communists are preaching knowingly a false doctrine when they exhort the workmen to diminish output and demand higher wages, since any depreciation or increase in cost of work done must necessarily be borne by the 90 per cent., consisting of the workmen and those on the same income level. In numerous articles there has been a marked change in tendency, leading in some cases to a rise in prices." The following quotations are per kilo. in marks for original packages. Breaking bulk entails a higher quotation:

Acetanilide has advanced from m.30 to m.57.50, at which it is in brisk demand.

Acetic Acid (80 per cent.) has been dealt in at m.12.50.

Ammonium Bromide is neglected at m.45.

Antipyrin is firm at m.350.

Aspirin.—Genuine is firmer at m.325.

Benzaldehyde.—Almost free from chlorine, for foodstuffs, after being neglected for a long time, is now in fair demand; and owing to scanty supplies from manufacturers has advanced to m.100.

Benzoic Acid has advanced to m.65 and sodium benzoate to m.60.

Caffeine, Pure, is one of the rare chemicals, and supplies are very scarce. It is firm at m.800, and foreign buyers are interested. Caffeine sodio-benzoate and caffeine sodio-salicylate are worthy of attention at m.400.

Camphor (Refined).—Powder has declined to m.175. Camphor substitute, for technical uses, remains firm at m.50.

Citric Acid is apparently less in demand as an ingredient of beverages, since excursionists are not able to pay the high prices asked for non-alcoholic drinks, hence it has declined to m.95.

Coumarin is being sold at m.475, while manufacturers ask m.650. Stocks in dealers' hands are very small, so that the price can easily advance if there is any demand.

Cream of Tartar (99/100 per cent.) has not been in great demand lately, and has declined to m.37.50.

Ergot, after being for a short time in brisk demand, is now dull, and the price has dropped to m.275.

Frangula-bark has changed hands at m.12.50.

Glycerin, in spite of scanty supplies, has declined to m.29.

Heliotropine is slow of sale at m.550.

Hexamethylenetetramine was in brisk demand by foreign buyers at m.275.

Hydroquinone, at m.140, would appear likely to rise, and there is a wide margin between this quotation and factory price.

Iodine Preparations.—No demand. Iodine resubl. is m.400, potassium iodide m.325, sodium iodide m.350, and iodoform m.375.

Menthol Cryst.—A few transactions have taken place on the basis of m.750.

Milk-sugar has declined to m.32, but is likely to advance before the winter.

Oxalic Acid has been in considerable demand, and is firm at m.37.

Phenolphthalein is worthy of attention at m.110, at which price it advances to meet the still considerably higher factory quotation.

Potassium Bromide has advanced to m.33, coincidently with diminished supplies and increased demand by foreign buyers.

Potassium Permanganate, after dropping to m.50, has now advanced to m.60, and is in demand by foreign buyers.

Potassium Sulphoguaiacolate is very scarce at m.275.

Quinine.—"We are purchasers of hydrochloride and sulphate in original packages and request offers."

Resorcin.—Scarcely any business has been done. Ph.G.V. quality is quoted at m.300, and technical at m.250.

Salicylic Acid has suddenly increased to m.60, thereby approaching somewhat to the factory price, which is still higher.

Salol has advanced to m.110.

Sodium Bromide has been neglected at m.45.

Sodium Salicylate is especially scarce at m.78.

Tartaric Acid.—Although still in demand, orders are for small quantities only, and a large order is a rarity. Price has declined to m.48 for granular and powder, and to m.55 for crystals, which are scarce.

Theobromine.—Sodio-salicylate is obtainable at m.350.

Vanillin is in brisk demand, and the price is advancing.

Sandalwood Oil.

The sandalwood-oil industry has made progress of late in Western Australia (says "The Times Trade Supplement"). The oil is obtained by steam distillation from *Santalum spicatus* (*C. & D.*, March 20, p. 70, and 1919, p. 1010). The sesquiterpene alcohol, usually referred to as santalol, is present in this oil in varying amounts, averaging about 70 per cent. Wood from certain parts of the State has been known to yield as much as 76 and 78 per cent., but this higher average is set off by the decreased amount of oil obtained from this particular wood.

One species of santalum growing in the State has yielded an oil similar in most respects to Mysore oil, but with an average rotation of 2° and an alcoholic content of 82 per cent. If sufficient inducements were offered, no doubt steps would at once be taken to procure it. Investigation, it is claimed, has at all events shown that the lowest quality of refined Western Australian oil is equal medicinally and therapeutically to the Mysore oil, and if the medical authorities are satisfied that this is the case—and there is not lacking evidence in this direction—it is not easy to understand the difficulty that occurs in this oil being recognised by the British Pharmacopœia.

Sandalwood grows in Western Australia over an area more than twice as large as that of Great Britain, but the difficulties in getting it are annually increasing. Fresh enterprise is undertaking the manufacture of the oil in the hope that the British Pharmacopœia will recognise the product, and thus throw open the markets of the world. In limited quantities sandalwood is also found in Victoria, New South Wales, and Queensland, and trade with the East has been growing steadily since 1901.

Correspondence

Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

Drugs and Dysentery.

Sir,—Dr. McWalter's writings are always of interest, and his letter detailing his experience of the treatment of dysentery during the war (*C. & D.*, July 31, p. 70) is certainly no exception to the rule. I think he hardly makes sufficiently clear the difficulty of diagnosing clinically between the two principal forms of dysentery. Personally, I doubt if it is possible to differentiate the various varieties without the microscope, and even when cysts, or Thiga's, or Flexner's bacilli have been found there is always, as he points out, the possibility of a mixed infection. Moreover, as many writers have shown during the recent war, both bacillary and amœbic types of dysentery were frequently associated with one of the paratyphoid fevers, and these fevers often began with purely dysenterie symptoms. With regard to drugs, broadly speaking, bacillary dysentery can be cured by purging the patient with either Epsom salts, Glauber's salt, calomel, or castor oil. Sir Frederick Taylor, the President of the College of Physicians, in the latest edition of his book, gives you your choice, and I am old enough to remember when the Anglo-Indian doctor used to cure dysentery with calomel. The amœbic variety, or I should say varieties, is a different proposition, and we have here a specific in ipecacuanha which has held the field in the treatment of dysentery long before the existence of even two varieties of the disease was dreamed of. The method which Mr. McWalter describes of giving twenty minims of laudanum, and following it up in half an hour or so with thirty grains of powdered ipecacuanha, is far from being an invention of the I.M.S. It was the universal method of treating the disease when I went to the East a quarter of a century ago, and is still very largely employed in every part of the tropics. It was, however, an I.M.S. officer who first introduced emetine, and during my last seven or eight years in India I often blessed his name. Not because emetine cured amœbic dysentery any more effectively than ipecacuanha, but because it is a drug which you can exhibit with ease in neurotic cases and which seems specially useful in those early cases of inflammation of the liver which run on to liver abscess. In my earlier days in the tropics liver abscess was exceedingly common, and one rarely went many days in a hospital of any size without an operation for its treatment. One of the most striking contrasts between my first and latter decades of tropical life was that during the latter liver abscess had become as rare as it was common previously. I attribute this to the use of emetine. In the older days one used to hesitate to give ipecacuanha on account of its unpleasant effects—and no one can realise how very disagreeable these were who has not himself been dosed with ipecacuanha. Castellani in his "Manual of Tropical Medicine" only mentions ipecacuanha as an alternative to emetine. He speaks favourably of Martindale's method of stearin-coated pills, and gives the alternative method of five grains every three to six hours and one dose of twenty grains twice daily. In my experience it makes little difference whether you use ipecacuanha or emetine, and I have got just as good results from the latter as from the former and *vice versa*; but what does matter is the quality of drug used. It is essential to use the best Brazilian ipecacuanha, which contains 72 per cent. of emetine, which is, of course, methyl-cephaëline, in its total alkaloids, the other alkaloids being cephaëline 26 per cent. and psychotrine 2 per cent. Carthagena ipecacuanha gives disappointing clinical results, as it only contains 40 per cent. methyl-cephaëline and 57 per cent. cephaëline. The tropical pharmacist should ensure that all his powdered ipecacuanha has an alkaloidal strength of 2 per cent. One would have liked to have heard more from Dr. McWalter as to his experiences with other drugs in the treatment of dysentery, as his views would prove of special interest to your numerous readers to whom "The Lure of the Orient" has proved overwhelming. Acute dysentery is a disease with a more or less clear-cut scheme of treatment. It is when the disease becomes chronic that we find ourselves plunged in a veritable maze of remedies—all with their advocates. *Simaruba officinale* is perhaps the best known of these drugs, as Sir Patrick Manson advocated a decoction prepared from fifteen grains each of simaruba, dried pomegranate fruit, and gum arabic, added to a litre of water and boiled down to half a litre ℥j. ter in die. Kho-San powder, which consists of the powdered berries of the *Brucea antidysenterica* and *Brucea sumatrana*, is well known and largely used in China, while cinnamon and extractum garcinias compositum, under the trade name of "amebrasine," have many friends who claim repeated successes from their use. Tinctura monsonia ovata and *Pelargonium tuberosum* and *flabellifolium* are credited with wonderful powers in the treatment of chronic bacillary dysentery, and in my own experience I can vouch for remarkable cures from the use of bael fruit and esafgool. I tried yellow santonin in a series of cases, but was disappointed with the results. In view of the fact that the war has scattered a very large number of chronic dysenteries about these islands, I suggest that pharmacists would do well to pay some attention to the pharmacology of the drugs I have mentioned. The therapy of chronic dysentery is in a very unsatisfactory state, and the pharmacist who is able to place a reliable remedy on the market would be not only doing a great service to the medical profession, but a still greater service to the State in saving the disability pensions now being paid to discharged soldiers who are the subjects of chronic dysentery.—Yours sincerely,

Another Irish Doctor. (22/8.)

The Pharmaceutical Balsams.

Sir,—On reading the interesting notes on the three balsams in the *C. & D.*, August 14, p. 52, one regrets to find the usual difficulties in such descriptions thus: "A mixture of three volumes of copaiba and one volume of ammonia should not be cloudy," etc., is meaningless, because we do not know what the latter reagent refers to. On the other hand, the nitrite test is clearer, and one knows better how to proceed and what to expect, although the "one or two drops" is not quite a modern scientific measurement of volume. Under balsam of tolu there is the perennial difficulty which is greatly in evidence in the B.P., the question of parts when a liquid is concerned. Twenty parts of chloroform. Does this mean parts by weight or parts by volume?—which would make a big difference, seeing that the sp. gr. of chloroform is nearly 1.5. The carbon disulphide test is also clearer, and surely the crystalline residue would be advantageously weighed—the "ammonia" difficulty crops up again here. Then the question of the "alcohol"—what is implied here? Again, "after adding 1 c.c. of phenolphthalein" is not very definite, and unworthy of official recognition, as is apparently suggested these tests should be. Under balsam of Peru, one part balsam of Peru and one or even two parts of alcohol does not lend itself to accurate accomplishment, neither does the carbon-disulphide test. The cinnamon test calls for a similar objection. "Three c.c. of sodium hydroxide solution" should have its strength stated, or the test is valueless.

Abel Scholar. (23/8.)

Grants to Ex-Service Men.

Sir,—Referring to your paragraph (*C. & D.*, August 21, p. 82) I understand that no extension of training can in any circumstances be considered in the case of applicants who fail in Part II. of the July 1920 examination after passing Part I. of that examination, and those who fail in Part I. can only have consideration when they can prove that sickness or accident, causing absence from their work for a vital period, was the reason of their failure. It is, therefore, necessary that trainees should work their hardest during their college course.—Yours, etc.,

Manchester. F. W. Bates.

London Prescription Pricing System.

Sir,—The explanation of the editor of the London Chemists' Retail Price List leaves me quite cold. In September last I "claimed no originality" for the method I suggested, nor do I now. The purpose of my paper was to find, if possible, a system suitable for universal use in place of other and out-of-date ones, and to ensure the price of prescriptions being the same throughout the country. I am very well aware that time and establishment charges are included when determining the retail price of an article. If the dispensing-fee is not to cover the extra expenses of the dispensing department (ample allowance for the professional element is made in the time charge), I fail to see what it is for. Profiteering Act Tribunals would not tolerate a professional fee of 9*d*. The National Insurance Commissioners' Explanatory Note, Part I., paragraph (3), Dispensing-fee, states: "The amount of the dispensing-fee is to be determined by reference to the Scale of Dispensing-fees" (Part III.). (The fees, it will be remembered, are based on a time charge.) "These fees represent not only remuneration in respect of professional services, where such services are rendered, but also an allowance per prescription in respect of all outgoings in the form of establishment expenses." Without prejudice, the "London Simplified System" contains no "novelty," precisely the same method being used in parts of the U.S.A. (*vide* Mr. Saunders' article, *C. & D.*, August 14, p. 65). Sincerely yours,

19 Haymarket, Sheffield. H. B. Hammond.

Sir,—Mr. Hammond may have some excuse for thinking that the London Simplified System is based on his figures as so many of them approximate, but Mr. Philip is not in the same street. It cannot be too plainly stated that the form of pricing the prescription is merely the shadow; the substance is near, but it cannot be obtained by grasping at the shadow. Who invented or discovered the method of pricing out the items in the prescription at the selling price, I do not know. I only know that I did not, neither did Mr. Philip nor Mr. Hammond. I suppose it grew, like Topsy. Any schoolboy can add a definite percentage to the pound price and divide by 16 for the ounce and by 7 for the drachm price, and then in a prescription add something else which he may call a fee or establishment charge. The difference lies elsewhere; it bears restating. A nucleus is arrived at from a standard rental business, to which is added direct and indirect costs; the turnover is dissected, which gives us the information in fixing the fundamental costs. To this is added the profit. Even that is not a novelty in the wholesale, but it is in retail, price lists.

The Editor,
London Chemists' Retail Price List.

The Lure of the Orient.

Sir,—Although late in the field, it is not from a lack of interest I have withheld my views on situations in the glorious East relative to a pharmacist's career, but rather from a sense that I was still open to conviction that there are splendid opportunities abroad, but I had either missed them or been too slow to take advantage of them; as this has still to be proved, the following comments may be of interest. Perhaps, in passing, Mr. Saunders will not take objection to being reminded he travelled abroad as a tourist, and while, without doubt, his keen sense of judgment may be relied upon, only the man who has been East as a chemist's assistant knows the life, its limits, and its possibilities. No doubt many readers can recall being visited by a tourist who has brought with him some link of the old country, and this, however small it may seem, has helped us to carry on and think it was not such a bad country we were living in after all. In my experience, which included India and the Federated Malay States, I found conditions far worse in the former than the latter. In India the hours were longer, the pay less, and the chemist's assistant was about on a par with the native; in the Federated Malay States, so long as a man was British, he was treated as such, and although socially the life was better, in the matter of pay and hours conditions left much to be desired. After leaving the East I sought further experience in the Colonies, and the trip to Australia *via* the Torres Straits amply rewarded me for the miserable existence I had in India. Australia as a land to live in is without an equal, but reverting to life there as a chemist's assistant the cities are overcrowded, and I found the Colonials themselves grew very tired of life in the bush towns and packed up after a few years, and were no better off financially than their city *confrères*. From this I took warning that if the Colonial could not stick it, it wasn't to be expected the Britisher could. A trip home round Cape Agulhas ended my roaming days. Now, when I reflect the experience gained abroad was useful, I have no regrets, but, financially, the man who stays at home is better off, and the only consolation I have is sometimes to listen to other men, who perhaps have made a trip across the Irish Sea, and hear them relate tales of mountainous seas where had not the anchors been blown from the skipper's buttons the ship and her living freight would have been dashed to destruction on some uncharted rock.

Matram. (23/8.)

Sir,—Mr. W. H. Saunders, in his address on "Pharmacy Abroad" (*C. & D.*, August 14, p. 65), said that he made the remark with some hesitation that chemists abroad seem to have a wider outlook than those at home. There was no necessity for hesitation. If he had made the remarks twice as strong, and forwarded a copy to every pharmacist in the country, it might perhaps have gone some little way towards shaking them out of the usual rut. A little more of the spirit of the New Zealander, who referred the customer politely elsewhere, would work wonders. The pharmacist at home is always so terribly afraid of upsetting somebody that he has no time to look after his own interest. If it is not the customer, it is the doctor, or the Insurance Committee, or the Profiteering Tribunal, or else they are afraid of the opponent over the road stealing a march on them. I remember, in the days before the 8 P.M. closing rule came into force, two pharmacists, nearly opposite to each other in a small town, who spent the latter part of every evening in watching the other man's shop to see if he was shut. The British public is very apt to take people like this at their own valuation, and the same public who will in a large store queue up humbly at the pay-desk before their parcels are handed to them will enter a retail pharmacy, purchase a sixpenny safety-razor blade, order it to be sent home, and expect three months' credit as well. This is to a large extent the pharmacists' own fault, and, taken in conjunction with the weak-kneed policy of their official representatives, has conduced largely also to the manner in which Government Departments treat them as a negligible quantity. One can be civil without being servile, and if Mr. Saunders can drum this into the composite head of English pharmacists he will have done us a very considerable favour.

Yours faithfully,
Independence. (19/9.)

Plums for Doctors.

Sir,—With reference to your note under the above heading (*C. & D.*, July 31, p. 58), may I invite the attention of your readers to a letter from our fellow-craftsman, Dr. J. C. McWalter, in the last issue of the "British Medical Journal," in which he states that it is unseemly that there is such competition for these positions? In view of the present value of skilled medical labour, it is difficult to understand why so many doctors endorsed your view that these appointments were "plums." The fact is that military service has upset the equilibrium of a considerable number of medical men, who prefer the fixed hours and limited responsibilities of official life to the uncertain hours and high responsibilities of general practice. The medical profession seems therefore to be suffering from "Addison's disease," and to be anxious to have itself nationalised; but the spokesmen who represent this view, and who are scrambling for plums like these, are not representative members, and do not represent the large majority who love their work and do not shirk their responsibilities.

Yours sincerely,
M.D., L.P.S.I. (24/8.)

Legal Queries.

Reno (18/8).—Dutch Drops is always liable to medicine-stamp duty, as it is specifically mentioned in the schedule to the Medicine Stamp Act, 1812.

T. W. W. (11/8).—The changes in the Poisons Schedule recently suggested are not yet in force. The regulations under the Dangerous Drugs Act will replace those under the Cocaine and Opium Regulation, but the Pharmacy Act requirements will still have to be carried out.

E. H. B. (14/8).—Larkspur (*Delphinium Consolida*) contains poisonous vegetable alkaloids, and a nursery lotion containing a decoction of larkspur is a poison within the meaning of Part II. of the Poison Schedule. A rosemary and cantharidine hair-lotion also needs to be labelled "Poison."

A. L. (18/8).—There is no official or unofficial list of articles which come within the definition in the Shops Act of "Medicines and Medicated Surgical Appliances." There have been many prosecutions under the Act, and convictions have been obtained for selling perfumes, nail-brushes, and similar articles.

A. S. P. (7/8).—Salines such as "mineral salts" are exempt from medicine-stamp duty, even though proprietary rights are claimed, under Section 20 of the Medicine Stamp Act, 1833, which repealed Section 4 of the 1812 Act. Lamplough in 1878 established the fact that the repeal covered salines, and "mineral salts" would come under the designation of a solid composition for compounding an artificial mineral-water.

J. S. (19/8).—An unqualified person is not entitled to carry on the business of a chemist and druggist even though a registered chemist is employed. Limited companies can carry on business with a qualified manager, but not private persons. You cannot enter into a dispensing contract with the Insurance Committee as the Committee may only supply dispensed medicines through qualified persons. If you do not trade in your own name you must register under the Business Names Act.

Volex (20/8) has been given six months' notice increasing the rate of interest, secured under a mortgage, from 4½ per cent. to 6 per cent. The rate of interest was originally 4 per cent., and was increased to 4½ per cent. prior to August 1914. The property covered by the mortgage is a freehold residence, in a country town, rated at 25*l.*, and occupied by the owner. Is the amount of the increase permissible? Also, is any special form of notice required, and is six months' notice sufficient?—[The maximum amount by which the rate of interest payable in August 1914 may be increased is by 1 per cent., making the rate 5½ per cent., and until after July 2, 1921, only ½ per cent. of this increase is recoverable. Subject to the provisions of the mortgage, six months' notice of increase is sufficient, and no special form of notice is necessary.]

R. S. (24/8) is tenant of a combined house and shop under a lease which expires in December next. The lease specifies separate rentals of 70*l.* and 20*l.* for the shop and dwelling accommodation respectively, because when the lease was granted the house was already let to a third party. The lease expires in December next, and "R. S." asks whether the landlord, upon granting a new lease, is subject to the restrictions with regard to increasing the rent imposed by the Increase of Rent Act, 1920. Whether or not the Act applies to the premises depends entirely upon the form of the lease. If the lease is substantially one letting of both house and shop the rental is, in effect, 90*l.* a year, and the landlord is entitled to increase the rent to any extent, unless the combined rateable value of the shop and house does not exceed 78*l.* If, on the other hand, the rateable value of the whole premises does not exceed 78*l.*; or if the lease virtually constitutes two separate lettings of the house and shop, with separate covenants in respect of each; then the Act will apply, and the landlord will be permitted to increase the rent only to the extent prescribed. We advise "R. S." to submit his lease to a solicitor for his opinion.]

Dispensing Difficulties and Notes.

A Gelatinous Mixture.

(*C. & D.*, August 7, p. 79.)

Sir,—A sulphate gives with ferric chloride in solution basic ferrous sulphate. It is the same mucus-like precipitate that is obtained in the process of purifying water with ferric chloride which was in use fifty years ago. By adding some acid the basic sulphate is prevented from forming.

Yours truly,

Hilversum, Holland. P. Van der Wielen.

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Pussy likes Pepsin.

A few days ago, while dispensing some cachets of pepsin, I was called away to attend to the wants of a customer, and on my return was both astonished and amused to find that the pharmacy cat was consuming the little heap of pepsin, with great relish. Since then I have on two or three occasions given the cat a little, and he seems to take it as a great luxury. *J. P.* (3/7.)

Cyathus.

"Xrayser II." quotes cyathus as meaning "wineglassful" I was taught that cyathus was "a glassful," simply; "*cyathus vinarius*," a wineglassful; "*cyathus magnus*," a tumblerful. A real Victorian sherry-glass does not hold 2 oz. To-day a wineglassful seems, however, to mean 2 oz., and by doctors is expressed "ex cy. vin." *Observant.* (23/8.)

What is Syr. Hypophosph.?

Mr. H. C. Richards, Croydon, writes: "A few weeks ago I received a script in which syr. hypophosph. was ordered, and, being in doubt, rang up the doctor, who informed me that it was not the 'co.' he required. I dispensed syr. hypophosph. U.S.P. In my opinion the only safe course to adopt is to communicate with the prescriber if possible; if not, give what is ordered, of course paying due regard to other ingredients in the case of 'co.'"

Insect Powder.

To what is the fly-killing property of insect powder due? It has been ascribed to volatile oil and resinous matters, but that does not quite agree with experiments. If the insect powder be exhausted with water, which presumably leaves behind most, if not all, of these constituents, and the residue be then dried in the air, flies in captivity do not seem to suffer much inconvenience when turned into a field of this, placed on paper under a glass funnel with free ventilation, except that their legs and wings become dusted over with the powder. Theoretically they should die in eight minutes, but they are very much alive after that number of hours.—*Abel Scholar.*

First-Aid and Home Nursing in the Colonies.

Qui Hoi (25/8) writes: I note that a correspondent has been asking your advice with reference to handbooks on first-aid and home nursing in the tropics. May I direct his attention to a series of books on the subject by our fellow-craftsman, Colonel R. J. Blackham, C.B., D.S.O., M.D., Ph.C.? The "Tropical Manual of First-Aid" is in its twenty-fourth edition, and "Tropical Home Nursing" is in its ninth edition. The books are the official text-books of the Indian Red Cross Society and of the College of Ambulance in London. They may be obtained from Dale, Reynolds & Co., Ltd., 46 Cannon Street, London, E.C. A useful addition to these little books is the same author's "Care of Children," a fourth edition of which is just being published by the Scientific Press, Southampton Street, Strand.

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

E. J. (16/7).—Lard for Ointments.—The only remedy in the case of lard which makes an abnormally soft ointment—*e.g.*, ung. zinci—is to harden it by adding a proportion of indurated lard or suet. The British Pharmacopœia allows the use of hardening ingredients in tropical and sub-tropical parts of the Empire, and could hardly object to the use of an ingredient designed to make an ointment of proper consistence. Sometimes excessive manipulation of the basis causes the lard to soften, and it is advisable in this case that the manufacturing operation should be carried out in a cool place. The lard should also have been stored in a cellar some time before use.

H. R. (9/8).—Stained Bath.—The reason why liq. ammon. fort. fails to remove iodine stains from a white enamelled iron bath is probably because of the protection afforded by the film of grease which is left from the soap. If the grease is first removed by benzene, we think that an alkali or sodium hyposulphite will effectually remove the stain.

G. M. P. (6/8).—Generating Oxygen.—The method to which you refer consists of adding water to sodium peroxide (sold as oxylith). The other process, which was formerly much in use before the days of compressed oxygen in cylinders, is the generation of oxygen from potassium chlorate and manganese dioxide. The question of relative cost is one which you will need to consider.

H. M. R. (4/8).—Pulpit Illustration.—We are unable to suggest a suitable substance to produce a cloud of smoke on the application of a match, but we suggest that white gunpowder (equal parts of potassium chlorate and sugar) touched with a glass rod moistened with sulphuric acid would answer the purpose well. Experiment with small quantities of the powder to judge of the amount of smoke given off.

W. W. P. (17/8).—Phosphorised Tonic Drops, P.F.—

Ac. phosph. dil.	ʒiij.
Tr. ferri perchlor.	ʒij.
Quin. sulph.	gr. v.
Sp. chlorof.	ʒj.
Glycerinum ad	℥j.

Dose: Five to fifteen drops in a wineglassful of water three or four times a day.

Traveller (16/8).—Oil Stains in Book.—Spraying with ether or petrol and mopping with blotting-paper would dissolve the oil from the pages of the book. We do not think this treatment would affect the printing, as the oil in the printing ink will have become resinified.

H. D. (14/8).—Books.—There is no recent book on photography as a side-line for chemists. We published an article on the subject in *The Chemist and Druggist Diary*, 1900, and a chapter on photographic recipes is given in "Pharmaceutical Formulas." Optics is dealt with in "The Chemist-Optician," now out of print, but probably obtainable through an advertisement in the Coloured Supplement. "Business Methods" was the subject of an article in *The Chemist and Druggist Diary*, 1906, if this is what you mean by "commercial pharmacy."

C. W. S. (14/8).—Clearing Ponds of Algæ.—Copper sulphate of a strength of one in a million, used for destroying algæ in ponds, is stated not to be destructive to fish. The copper combines rapidly with the algæ and cannot be detected in the water afterwards. The method of using copper sulphate for the purpose referred to is to place the required amount (in large crystals) in a canvas bag, attach it to a boat and drag it through the water

J. S. (16/8).—Preparation of Liq. Violæ.—You do not state the process you are using (with unsatisfactory results) for preparing liq. violæ. As a rule the colour is yielded to boiling water. We note that some formulas order a small proportion of potassium carbonate gr. v. to 1 lb. of fresh violets or blue pansies; this may assist in extracting the colour.

W. W. (17/8).—Colour of Olive Oil.—The colour of olive oil varies considerably, all shades from water-white to golden-yellow being found in commerce. The green colour of olive oil is due to dissolved chlorophyll. The result of oxidation in olive oil is to develop the fatty acids. The finest edible oil is practically free from fatty acids, but inferior oils contain considerable quantities owing to decomposition of the marc during manufacture.

J. W. B. (26/8).—Galenical Preparations.—The expression "galenical preparations" in the syllabus for the Qualifying examination for chemists refers to the compound preparations of the British Pharmacopœia—tinctures, ointments, etc. The original sense of the word "galenical" covered the preparations of vegetable drugs employed by Galen and his disciples, but nowadays includes chemical preparations such as tr. ferri.

F. M. (11/8).—Bleaching Corks.—You will find it necessary, we think, to employ sulphur fumes for the purpose of bleaching corks. The corks should be soaked in water afterwards so as to remove sulphurous-acid gas from the pores, which, if left there, might injuriously affect liquids stoppered with the corks.

Pharmacist (17/8).—Treatment of Boils.—In the numerous remedies you have tried for boils, you do not seem to have included yeast. This is given internally, either in the form of fresh yeast (½ to 1 oz.) or dried powdered yeast (1 dr. in water)—with meals.

Helvetia (11/8).—Several formulas for improved hypochlorite solutions were given in *The Chemist and Druggist Diary*, 1918. The difficulty with these preparations is that they deteriorate rapidly.

J. P. B. (12/8).—Cream of Tartar Substitute.—The sample you send has starch mixed with it, partly to prevent too free activity; but your customer should never mix baking-powder directly with water. The powder is mixed first with the flour or fats employed in cooking.

J. M. (23/8).—Liquid Paraffin can be coloured a golden colour with a trace of "butter yellow" or "Sudan G" aniline dyes.

Mona (23/8).—Soda-mint Tablets.—The sample you send is made from a lozenge basis such as is used for soda and ginger lozenges, with the addition of peppermint oil. We suggest the following as suitable proportions:

Sugar	6 lb.
Sodium bicarbonate ...	1 lb.
Peppermint oil	2 drs.
Powdered ginger	4 oz.
Mucilage	a sufficiency

Roll thin and cut into small square lozenges.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Aug. 15, 1870.

Medical Gleanings.

We purpose under this heading to offer the readers of The Chemist and Druggist a digest of such items of medical matters, as may seem of general interest, occurring during the month. For this object, the medical journals of this country, of America, and of the Continent will be laid under contribution. As a rule, clinical and therapeutical reports will not come within the scope of these papers, nor are we anxious to descend very frequently into the small squabbles concerning "professional etiquette" which so often exercise some of our medical contemporaries. This definition of the top and bottom limits of our purpose, showing what our objects are not, will sufficiently explain what they are; and, therefore, with this introduction, we leave our contributor at liberty to wander through the fields open to him, and to call such specimens as shall come within his range.

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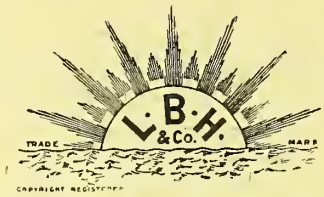

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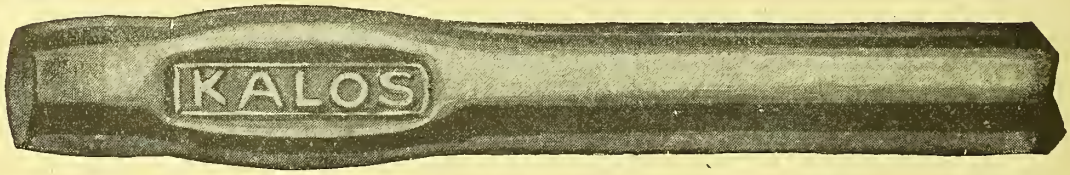

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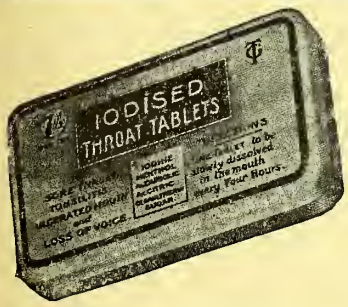

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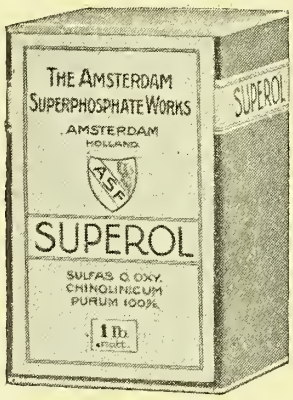

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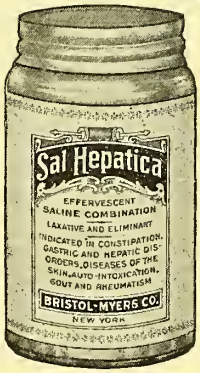

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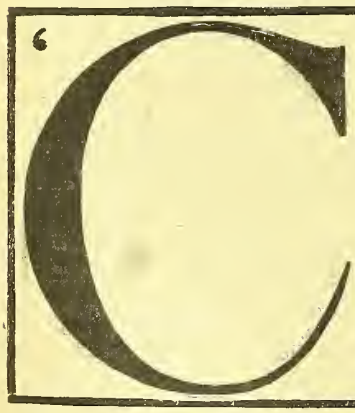

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EACH BOX CONTAINS TWICE THE VALUE OF ANY OTHER SIMILAR REMEDY.

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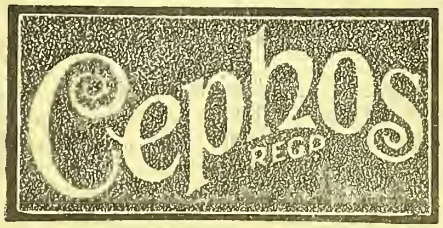

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Wholesale 30/- per doz., Retail 3/- each.

Each bottle (1 oz.) carries instructions to the chemist to make up to the following Standard Formula—

Liq. Barkola Comp., 1 oz.; Tincture of Gentian, 1 oz.; Syrup of Rhubarb, 1 oz.; Syrup of Ginger, 5 oz.

Chemists charge according to their own scale for dispensing

THE BARKOLA CO., LTD.,
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And your profit is 50-100%

EVERY customer who comes into your pharmacy knows Daisy as an old friend—27 years of continuous advertising has made Daisy known and trusted everywhere. Everyone who asks you for a headache or neuralgia cure has Daisy at the back of his mind, and simply to show him the box will make a profitable sale. Daisy is always half sold.

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The "Sunday Pictorial," with its nearly three million readers; "The News of the World," with over three millions; "The Sunday Chronicle," with over a million; as well as the chief evening papers of Ireland and Scotland, will all carry this Daisy advertising regularly for the next six months.

A greater demand than ever for Daisy is certain—your customers will want it—and we shall be obliged if you will see that you have an adequate stock of this high-class, well-advertised, high-profit line.

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Daisy Tablets, 1/3 Tins each containing 25 Tabs. 1 dozen tins, 13/- per dozen. 3 dozen tins, 12/6 per dozen.
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Carriage paid to Destination.

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secures profits as follows—

3d. Packets	44%	on	Cost	Price
1½ lb. Boxes	37%	,,	,,	,,
3½ lb. ,,	37%	,,	,,	,,
7 lb. ,,	41%	,,	,,	,,
14 lb. ,,	35%	,,	,,	,,

All orders of 20/- value and upwards are carriage paid. Cases at bare cost.

*28 lb. Bags,	Sent direct to	16%
*56 lb. ,,	Chemist's	20½%
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*No Stock to hold or handle.

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August 28, 1920.

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Osmos:			
3/- British Aperient Water	...	3/-	26/6 doz.

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We invite you——

to participate in the increased trade accruing from the publicity campaign which has been, and is still being, carried out.

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Our Terms permit a 50% profit to the Retailer.

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Packed in white glass toilet Bottles, with sprinklers and lithographed labels.

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Samples of labels on request.

Genuine Russian **LIQUID PARAFFIN**
All gravities, correct viscosities

"Jasmine Brand" **ADEPS LANÆ** Superfine Anhydr. and Hydrous
Lanoline

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White and Yellow

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FOR MANUFACTURING PURPOSES

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Castor Oils, *Medicinal, Lubricating.*

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Substitutes,
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IN TIN-LINED BARRELS OF 25 GALLONS EACH.

We are making Contracts for September—October delivery as required. Send us a Postcard for particulars.

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PETRO. JELLY

LIQUID PARAFFIN B.P.

WHITE OILS

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J. J. FRANSES & SONS, LIMITED,

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33% ON COST.

"MOTHINE"

The only preparation on the market that actually kills MOTH.

To introduce this article small orders will be supplied direct carriage paid.

Wholesale **18/-** per dozen (Concentrated Form).
Retail **24/-** per dozen.
Special Discount 2½% cash with order.

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Manufacturing Chemists,
Albion House,
59/61 New Oxford Street,
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WE SOLICIT YOUR ENQUIRIES FOR:—

OLIVE OILS, finest cream edible B.P.
SALAD OILS
PETROLEUM JELLY, B.P., White and Yellow
TURPENTINE, American Spirits and Substitutes
CASTOR OILS, all grades
COLZA OIL, finest and burning qualities
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LINSEED OILS, Raw and Boiled
MINERAL OILS, Bloomless "Lux" Brands
WHITE OILS, Slab and Commercial
LUBRICATING OILS of all descriptions

JAMES ARNOTT & SONS, Ltd., Newcastle-on-Tyne and Cardiff.
Registered Offices: 47 PILGRIM STREET, NEWCASTLE-ON-TYNE.

White & Half White Oils

WHITE PETROLEUM JELLIES
WHITE REFINED
PARAFFIN WAXES

HILTON, RIDER & Co. Ltd.
Manufacturers, Importers, Exporters.
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Fine Leaf Gelatine,
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Made in England.

FINE CRYSTAL GELATINES.
PURE SKIN GELATINES.
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ADULTERATION OF OLIVE OIL

As the adulteration of OLIVE OIL with TEA-SEED OIL is very much on the increase, I beg to draw the attention of the Trade to the following test which, it is to be hoped, may put an end to this fraud—

Prepare a mixture of concentrated nitric acid, concentrated sulphuric acid and water, equal parts by weight. Of this mixture 10 c.c. is well shaken in a test-tube with 10 c.c. of the oil to be analysed, and placed in boiling water for twenty minutes. Should any tea-seed oil be present the oil layer changes to a cherry-red colour. The colour varies with the amount and quality of tea-seed oil present, the crude oil gives a deeper colour. When cool, samples of pure olive oil solidify to a yellow, nearly white, mass, while the adulterated oil remains liquid or semi-solid, according to the amount of tea-seed oil present, having the characteristic colour.

When the tea-seed oil is less than 20 per cent. it is better to work on 50 c.c. of oil and 30 c.c. of the acid mixture. I have tried this test on samples of pure olive oil from different sources, and in no case have I obtained a positive reaction, but other vegetable oils, such as cotton-seed, sesame, &c., give the same reaction as tea-seed oil, and should be looked for. As the majority of olive oils at present on the market are grossly adulterated with tea-seed oil, I hope that public analysts will take the matter in hand and put a stop to this fraudulent practice.

(*Signed*) JULES COFMAN-NICORESTI

The Analytical Laboratories, Apothecaries' Hall, Blackfriars, London, E.C. 4.

Reprint from "The Chemist and Druggist," March 20th, 1920, p. 73.

LEON FRENKEL

Olive Oil Importer,

10 Lime Street,

LONDON, E.C.3

All Enterprising Druggists

are now using

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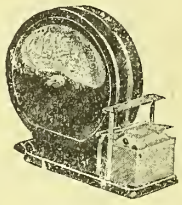

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Packed in Screw-Capped Jars, Bottles and Tins, holding 1 lb. and 2 lb. Neatly Labelled and Wrapped. Customer's Name printed on Labels for Orders of 1 Gross and upwards.

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If not, you should take steps to procure one, and we will pay the cost.

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The only conditions are—

1. *That you agree to give full display to Dr. Hale's Vin-Sanguis in your premises all the year round.*
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Packed for dispensing only, in 10, 22, 40 & 90 oz. bottles.

"Experience has shown this preparation to possess the same efficacy as Santal Oil itself. It mixes clear with water, and has a taste by no means disagreeable."

The Practitioner.

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TRADE MARK

Of proved utility in Nervous Diseases, and a powerful Restorative for the Digestive Organs and Nervous System.

A Valuable Tonic Food for Children.

"It is of high nutritive value enhanced by the presence of assimilable phosphates."—*The Lancet.*

WHOLESALE PRICES.

No. 1.	1½ oz. Tin ...	9/-	per doz.
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MIST. PEPSINÆ CO. c. BISMUTHO

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Packed for dispensing only, in 10, 22, 40 and 90 oz. bottles.

"Obviously likely to be of much advantage in the frequent cases of irritative dyspepsia, with atony of gastric or intestinal muscular layers."

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Introduced and Prepared only by C. J. HEWLETT & SON, Ltd., Wholesale Druggists, 35–42 Charlotte St., London, E.C. 2.

VITMAR

The Medical Profession are recommending VITMAR for delicate children and Invalids.

If you do not yet stock it your wholesaler will supply you.

Manufacturers:

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Food Specialists,

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Extract of Malt

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Cod Liver Oil

IN BULK, JARS OR TINS.

Prices on application.

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BRITISH DIAMALT CO.

BISHOP'S STORTFORD.

Proprietors { H. A. & D. D. TAYLOR
H. D. & C. T. TAYLOR

33 1/3 PER CENT. Bonus

in the shape of 4 FREE BOTTLES will be given to every chemist ordering one dozen bottles of Osmos.

Osmos
The Great British Aperient Water

The condition is that Osmos is displayed in their window until their order is sold. Show Osmos and attract the customers that our advertising campaign and physicians' orders are creating every day.

NOTE THE REVISED PRICE

Owing to increased cost of production, the Proprietors find it necessary to raise the price of Osmos, the increase to take effect on and from September 1. The price will then be—

To the Trade .... 26/6 per dozen bottles, Carriage Paid

Retail Price .... 3/- per bottle (P.A.T.A.)

OSMOS, Crown Wharf, Hayes, Middlesex

The Quenching Twins' message this week is :

"Get in on this proposition, Mr. Retailer. The terms below—and our ready sales—are convincing proof of the good turn we will do you and your business."

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"The Perfect Summer Drink."

For an outlay of £3 : 12 : 0
less 2½ % cash with order, your order would be 6 doz. cartons. These sell at 1/6 each, yielding £5 : 8 : 0, and showing a return of £1 : 17 : 10. This represents a profit of 52½ %.

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ORDER NOW—you will follow up with a second **soon**, *for QUENCHOLEEN sells at sight.*

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SELLS FREELY & READILY
PAYS 50% ON OUTLAY

An Infallible Remedy for GOUT, RHEUMATISM, ECZEMA, and SKIN AFFECTIONS.

	P.A.T.A.	Doz. Net.
4-oz. tins	1/-	8/-
8 oz. tins	1/10	15/-
Bottles	2/6	20/-

The only line of its kind on the market

SOLD EVERYWHERE.

Manufactured by
LOFTHOUSE & SALTMER, Ltd. HULL

JOY'S MEDICINAL CAPSULE Co.

Wholesale Manufacturers.

Capsules made to suit all Climates. Worm Cure for Dogs a Speciality.

OWN MATERIAL FILLED IF REQUIRED.

Address:
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3d. *packets.*

A wonderful seller packed in waterproof boxes. The powder contains a Terpeneless Lemon and the necessary sugar. One packet makes one pint. Good window bills with all orders.

1 gross 22/- per gross.
5 „ 21/- „ „

W. B. CARTWRIGHT, Ltd.,
Makers of Pharmacy Specialties,
RAWDON, *near* LEEDS.

MASON'S EXTRACT OF HERBS

can be made up successfully with Treacle.

Please apply for supply of descriptive bills for distribution or counter use, to

Newball & Mason
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Vinum Xericum

BUTTS.	HOGSHEADS.	QR. CASKS.
108 galls.	54 galls.	27 galls.

STRENGTH 17°

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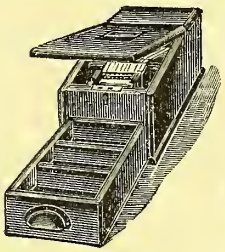
THE IMPROVED
DUDLEY CASH TILL.

This Till, though so inexpensive in price, does the work just as efficiently as one costing double the price. It is made from well-seasoned wood, stained and polished to imitate richly coloured mahogany. Size: 18×9×7½". Lid fitted with lock and key. Recording paper 3⅞" wide. Automatically rings warning bell every time cash drawer is opened. Price, packed in wood case, **77/6** each.



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Dudley Till Coils, **5/-** doz.

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ACETIC ACID

Made in Canada. Highest Quality.

SHAWINIGAN

GLACIAL - 98/100 %
80 % pure edible

GLACIAL PURE 99/100 %
80 % technical

Rates quoted to any port in the world by Shawinigan Ltd., 1 Tudor Street, E.C.4, Suppliers of Calcium Carbide for Cutting, Welding, etc.

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Stocks held in London and Liverpool

A BIG REPEAT-ORDER BRINGER.

The Flavour Pleases.

OUR BONUS TERMS.
We allow sums of **20/-, 9/6** and 4/6 for Window Displays, according to size of order. The profit is over 8d. per tube on the 1/3 size.

Write for particulars.

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ANTISEPTIC TREATMENT OF ALL KINDS OF FEVERS.

A simple, natural and scientific external remedy for all Zymotic Diseases, Influenza high temperature, Headaches from all causes, Sunstroke, the various forms of Rheumatism and Gout, Neuralgia, Sciatica and Lumbago, Bruises, Sprains and Contusions.

2/- Size 18/- per doz.
3/- ,, 27/- ,,
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Carriage paid for not less than three dozen.

Less 5% for window shows. Attractive show cards supplied. A steady regular sale ensures 40% profit on cost.

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G.O. Seidlitz Powders

They are actually Lemon-flavoured And—SWEETENED

Just the "line" you require for rapidly developing a FAMILY TRADE. Make a window or counter display. You will sell out rapidly.

Wholesale 21/- gross packets. Retail at 3d. each. (5-gross lots less 5%).

They are packed in smart envelopes. 6 dozen envelopes in a carton (½-gross cartons) complete with attractive showcards. Order them direct or through your Wholesale House Customers ordering 3 gross or upwards direct may have their own name and address printed exclusively on the back of a special envelope.

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TWO DAINTY LINES
THE BEST ON THE MARKET.

Actual size.

Now in Stock. Packed in Pre-war Style Aluminium Hinged Boxes (enamelled finish) and Show Boxes of 1 dozen.

Per 6/- doz.

In Screw-top Boxwood Cases and Outers of 1 dozen with Showcards.

Per 4/- doz.

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Obtainable through all Wholesale Houses.

YOU CAN NOW GET YOUR SUPPLY OF
BEUTOL Egyptian Toilet Preparations
from your usual Wholesaler, or direct from Manufacturers at the following prices:

BEUTOL Vanishing Jelly	10/- doz.	BEUTOL Beauty Milk	16/- doz.
BEUTOL Hair Tonic	20/- ,,	BEUTOL Shampoo Powders	24/- gross
BEUTOL Egyptian Perfume	28/- ,,	BEUTOL 2 oz. Brilliantine	16/- doz.
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HEALTH SALT *SUPERIOR QUALITY.*
4-oz. Decorated Tins.
1 Gross ... 78/- 5 Gross ... 77/-
2 ,, ... 77/6 10 ,, ... 76/6
Carriage paid.
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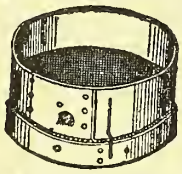

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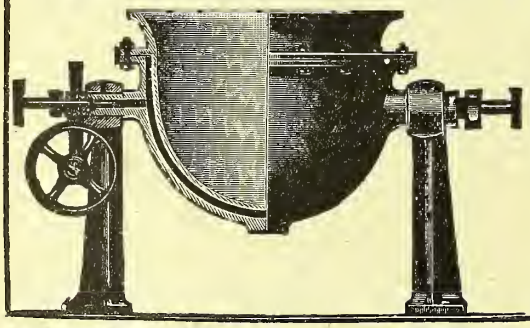

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33-39 Chemin des Culattes, LYONS, France.
Suppliers before the War to the largest European Manufacturers of Chemical Products.
Write for Price List to Sole Representative:
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OF EVERY DESCRIPTION. PROMPT DELIVERY.
DIRECT FROM THE WORKS. :: WHOLESALE & EXPORT.

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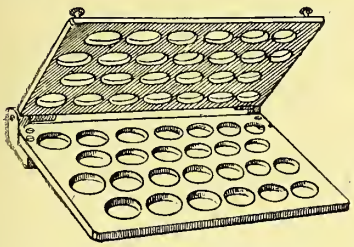
THE "LE RÊVE" MACHINE



is made in both kinds, to be used with either the French or Morstadt series of cachets.

Complete with thimbles and damper,

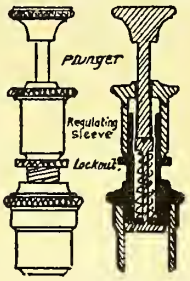
£2.2.0

CLARK'S COMPRESSO DOSEUR

enables one to dispense cachets in less than half the usual time, and can be used with the greatest ease and accuracy by the most incompetent junior after a little practice.

The Chemist & Druggist says: "The reasonable price of the machine renders it useful to all classes of chemists, but especially to those who fill their own proprietary cachets."

Price **15/-** net.



All kinds of cachets are now in stock, including Morstadt, French, and

THE NEW DRY CLOSING TYPE

of cachet. Samples of the latter kind will be sent on application. These can be used without a closing machine, only the Compresso Doseur is needed. They are by far the most practical and hygienic type of cachet on the market.

CICERO S. CLARK, Cachet Specialist,
Pharmacie Française, 12 Richmond Road, Bayswater, W. 2.

Excellent Selling Line

SILVER CAP
One-Drop Perfumes

Attractively packed in fancy boxes, each containing 6 artistic bottles with ground glass, non-leaker stoppers, and plated caps.

Price - - **90/-** *per gross bottles*
(ASSORTED PERFUMES).

Sample dozen - - - **7/6**

To be obtained from all Wholesalers, or direct from

John W. Mawson & Co., Ltd.
142 NORWOOD ROAD, S.E. 27.

METABISULPHITE of POTASH
HYPOSULPHITE of SODA (PEA CRYSTALS)
HYDROQUINONE

BENNETT, SOLLEY & Co.
61/2 Gracechurch Street, E.C. 3.
Telephone: Avenue 2040. Telegrams: "Sollecoben, Grace, London."

Sole Buying and Selling Agents for
Societa Italiana Prodotti Esplodenti,
MILAN.

New English Medicinal Herbs, Roots & Flowers.

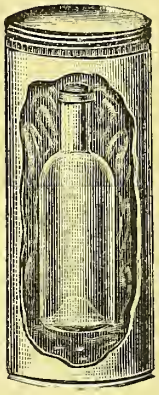
Agrimony, Avens, Bittersweet, Belladonna, Clivers, Colchicum Corms and Seed, Colchicum Leaves and Corms, Dandelion Herb, Fumitory, Ground Ivy, Meadowsweet, Mugwort, Nettles, Ragwort, Shepherd's Purse, Digitalis, Wild Carrot, Wood Betony, Yarrow, Yellow Dock, White Bryony, etc.

For full list, prices and particulars, apply—
FLEMONS & SONS,
Herb Merchants, DUNSTABLE.

BRITISH MADE.

THE "ELSWAL" REG. TRADE MARK

MAILING CASE.



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AT LAST!

YOU need use American mailing cases no longer. Here is a British production in every way superior to the foreign mailing cases which you have perforce used before. The "Elswal" Mailing Cases are inexpensive, strong and safe. No wrapping is necessary—the address label is simply stuck on the case and it is ready for postage. For mailing samples or other fragile articles the "Elswal" is the securest case on the market. Simply enclose the sample or article and pack it round with sawdust, screw in the cap and it is safe from all risks of breakage in transit. Send your samples out in the "Elswal" Mailing Cases. Quickest and cheapest in use, safe in transit and popular with the postal authorities.

EELES, WALKER & CO. Ltd.

CRESCENT, CAMBRIDGE STREET, BIRMINGHAM.

Telephone: Central 5324/5. *Telegrams: "Elswal Birmingham."*

PURE ORANGE WINE

A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.) Prepared in strict accordance with the Formula of the British Pharmacopœia. (Wholesale only.)
Samples from Head Office, Thomas Street, DUBLIN, or London Office, 43 Great Tower Street, LONDON, E.C. 3.

TO USERS and DEALERS in METH. SPIRIT and SPIRIT OF WINE.

FOR QUOTATIONS apply to—

PRESTON'S LIVERPOOL DISTILLERY Co. Ld.

The Largest Makers in the United Kingdom.

BANKHALL DISTILLERY, SANDHILLS, LIVERPOOL. Office: 4 India B'ngs, Water St, Liverpool.

GLASS BOTTLES WHOLESALE and EXPORT

Medical Flats { Best Quality, Quinine Tinted. Pale Tinted, 2nd Quality.
Panels ,, Pale Green.
Vials, White Flint. All sizes.
Poisons. Actinic Green, Blue or Amber.

SAMPLES AND PRICES UPON APPLICATION TO—

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Telephone—HOP 3222.

"NORVIC" CRÉPE BANDAGE
(Regd)

SUPERIOR ENGLISH MANUFACTURE. FAST WOVEN EDGES.
Extremely Elastic, but contains no Rubber.
Invaluable for binding. Displaces rubber and elastic web. More durable and one-third the cost. The Norwich Crepe Bandages, containing wool will provide warmth, and do not absorb grease readily. Self-clinging and self-adjusting. Perfectly cleansed, sterilised, and resiliency entirely restored by washing in hot soft water (with addition of a little soap). The edges will not fray out nor ravel. Made and supplied to the leading wholesale houses, neatly wrapped in labelled packages Commended by the medical and nursing professions. Send for prices and samples to the sole manufacturers—

"Warmth on the coldest day."

The NORWICH CRAPE CO. (1856) Ltd. (ST. AUGUSTINE'S SILK MILLS), Norwich, Eng.
Provincial Selling Agents, Freese & Moon, Ltd., 89 Bermondsey Street, London, S.E.1
London Buyers can obtain samples & prices from Mr. T. Eastaway, London Representative, 7 Wool Exchange, E.C.2. (13)

PATENT MINERALIZED
INDIA RUBBER
(Red Mineralized and Arabesque).
SURGICAL, CHEMICAL, DOMESTIC ARTICLES, SYRINGES, ENEMAS, WATER BEDS.
Manufacturers of every description of INDIA RUBBER, Wholesale & Export only.
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[See pp. 440-1, "C. & D." Diary, 1920.

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RUBBER GOODS ALL KINDS
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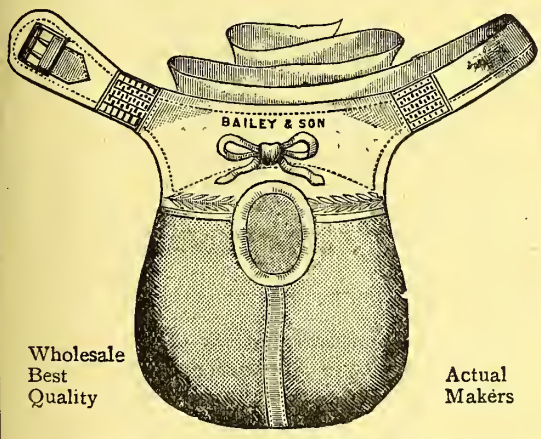
SUSPENSORY BANDAGES



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Actual Makers

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VINCENT WOOD
For British Made
Trusses, Belts, Suspensories, Elastic Hosiery, Webs & Surgical Appliances.

Purchase no German Goods, and from British Firms only.
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GOOD SELLING LINES, GOOD PROFITS, AND ABSOLUTE SAFETY IN STOCKING
"HOBSON'S CHOICE"
FEET PLAISTERS AND POWDERS
STOCK IS RETURNABLE AT ANY TIME, FOR ANY REASON, AND FULL PRICE REPAID.
For Prices and Samples apply to
HOBSON, TRIMBLE & CO., LTD.
Union St., and Market, LEEDS,
or your own WHOLESALE HOUSE.

Why Demand is still Growing.

Demand for the Nestlé Feeding Bottle is still growing—and it is growing because it is superior to any other feeder on the market. Its many advantages are so evident that mothers, thinking of the safety and comfort of their babies, are insisting upon the Nestlé Feeder.

The teat and rubber valve of the Nestlé Feeder are made with inner rolls which automatically cling and cannot be pulled off by the child. There is not the usual danger of swallowing the teat as in many other feeders. Pure plantation rubber is used in the manufacture of the teat and valve. Colic is prevented by the rubber valve regulating the flow of air behind the milk. This valve also ensures a steady milk flow in accordance with baby's need.

The Central base, tapering flat under surface of the virgin glass feeder enables it to be tilted to, and remain in, any desired position. This saves the time usually occupied holding the feeder. It holds more—the feeding capacity is 10 oz.—sufficient for any child at one feed.

NESTLÉ Feeding Bottle

The Cheapest full-size Feeding Bottle on the Market.

Every part of the Nestlé Feeder, including box, is British made. Every Feeder is sterilised before leaving the factory.

The margin of profit to you is good and the turnover rapid. Write us for full details and current Trade Price List.

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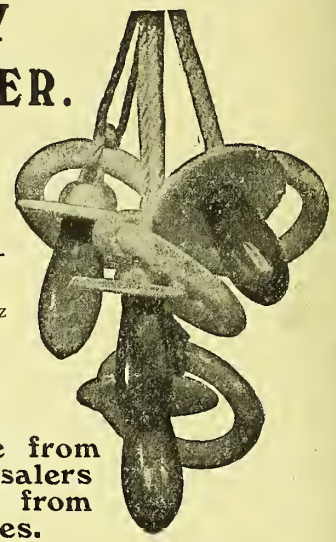
The "EVERSAFE" BABY PACIFIER.



Patented Everywhere.

Present rates:—

No.			
2	4d. line	**2/9**	doz
2C	6d. ,,	**3/2**	,,
2E	6d. ,,	**3/4**	,,
3	7½d. ,,	**4/8**	,,

Obtainable from all Wholesalers or direct from Patentees.

Sample Order, Three Dozen Assorted:
Send 10/6, post free.

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Send us a postal card and we will send you a 32-page catalogue of professional and business books for pharmacists, and a copy of

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an illustrated monthly magazine for druggists, full of American snap and enterprise.

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Packed to suit Customers' requirements.

Special Quotations for Large Quantities.

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Contractors to H.M. Government.

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Telegrams: "Carnebros, Phone, London." ABC Code, 5th Edition.
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WHOLESALE AND EXPORT ONLY.

'DAK' RATLIME
for Rat Extermination.

The use of 'DAK' Ratlime for Rat extermination is steadily extending and you may receive enquiries.

'DAK' is a specially manufactured Bird-lime of exceptionally high tenacity and of the consistence which experience has shown to be most effective.

'DAK' avoids the risks inseparable from the use of poisons.

'DAK' can be used with perfect safety in food warehouses, on farms and in the home.

'DAK' is easy to use.

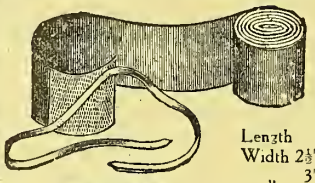
'DAK' does not require bait.

'DAK' victims are held on the spot and cannot get away to die in holes.

Cases of 1 dozen 1-lb. tins, 20/- net. Carriage forward.

KAY BROTHERS, LTD., STOCKPORT

TOMPKINS' CORNER.
OUR OFFER THIS WEEK.



Pure Rubber Bandages

Plain or Perforated.

Length ...	5	7½	10½ feet
Width 2½" ...	2/-	2/9	3/9 each
„ 3" ...	2/6	3 6	4/6

Elastic Thread Stockings
Sizes 1 to 7 ... 11/- Pair

Leggings, Kneecaps & Anklets
7/6 Pair

WE SEEK AND APPRECIATE YOUR ORDERS.

All kinds of SURGICAL RUBBER GOODS for the Home and Overseas Markets.

JAMES TOMPKINS, LTD.
(The Rubber House).
386 CITY ROAD, LONDON, E.C. 1
(and Rue d'Hauteville, Paris).

All British. *Established 44 years.* *Phone: City 7640.*

DISINFECTANTS
OF ALL KINDS.

Disinfecting Fluid,
Co-efficient Disinfecting Fluids,
Carbolic Acid (LIQUID and CRYSTALS),
Cresylic Acid,
Naphthaline,
Lysol, and
Disinfecting Powders.

The "KILLGERM" Co. Ltd.
CLECKHEATON.

Telegrams: "Disinfect Cleckheaton." *Telephone:* 237 Cleckheaton
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CHEMISTS' OVERALLS
From GARDINER & CO.

We supply protective overalls in any colour or style required. They are made by experienced hands for all branches of the Chemical trade.

KHAKI DRILL	16/9	21/-	26/6
WHITE DRILL	17/6	19/6	
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Sizes 34, 36, 38, 40, 42 and 44 inches over waistcoat.
SPECIAL QUOTATIONS FOR QUANTITIES.

GARDINER & CO. (THE SCOTCH HOUSE) LTD.
1 Commercial Road, E.1.
EST. 1839. Phone: AVE. 6650 (4 lines).

MANUFACTURER OF
ELASTIC GUM CATHETERS AND BOUGIES
WHOLESALE AND EXPORT.

Contractor to India Office, War Office, Admiralty, etc.

E. BRASSE, Culvert Works, Culvert Road, South Tottenham, N. 15

Telegrams: "ARTAPANUS LONDON." Telephone: TOTTENHAM 1627.

CLINICAL THERMOMETERS

Having overcome the War-time difficulties in the manufacture of these goods, we can now guarantee prompt delivery of orders. Each Thermometer is verified and stamped at the National Physical Laboratory, Kew, and can be thoroughly relied upon. High prices still remain, but the main thing is quality for the money—that we guarantee to give you.

PRICES

Hospital pattern	per doz. 28/-	60 seconds, lens front ...	per doz. 38/-
,, ,, lens front	,, 31/-	30 seconds, plain	,, 40/-
60 seconds, plain..., ...	,, 34/-	,, lens front ...	,, 44/-

Each Thermometer in Metal Case.

HOUSE THERMOMETERS, Etc.

No. 1008 House Thermometer, assorted colours, 8 in.	per doz.	12/6
,, ,, imitation boxwood, 10 in.	,,	18/-
,, ,, for Sick Room, 8 in.	,,	18/-
No. 1009 Bath ,, floating, plain wood, 10 in.	,,	17/6
,, ,, ,, ,, 12 in.	,,	18/6
No. 1608 ,, ,, in japanned metal frame, 10 in. ...	,,	30/-
Lactometer (milk tester), in card case, complete with directions for using	,,	14/-

A discount of 5% for prompt cash is allowed on all amounts of 10/- and upwards. Money returned if goods are not satisfactory. Write for new illustrated PRICE LIST, post free for the asking.

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Vulcanite DOUCHE FITTINGS
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BONE SHIELDS
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Cheap lines in NAIL FILES (bone and steel) carded

SAFETY RAZORS and spare blades.

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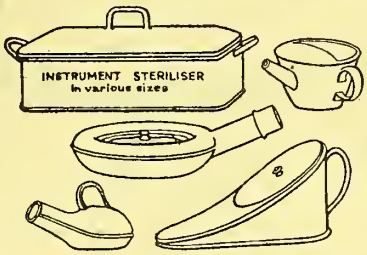
NAIL CLIPPERS.

TOOTH BRUSHES
at low prices.

And all kinds of Surgical and Hygienic Rubber Goods.

Enamelled Hospital Requisites



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EXCELSIOR CREPE BANDAGES. FAST EDGE.

EXCELSIOR CREPE BANDAGE NAME

Owing to the War, the supply of Crepe Velpeau Bandages is discontinued. We, are, therefore, placing on the market a bandage of English manufacture which will be sold as

GIMBER'S EXCELSIOR
CREPE BANDAGE

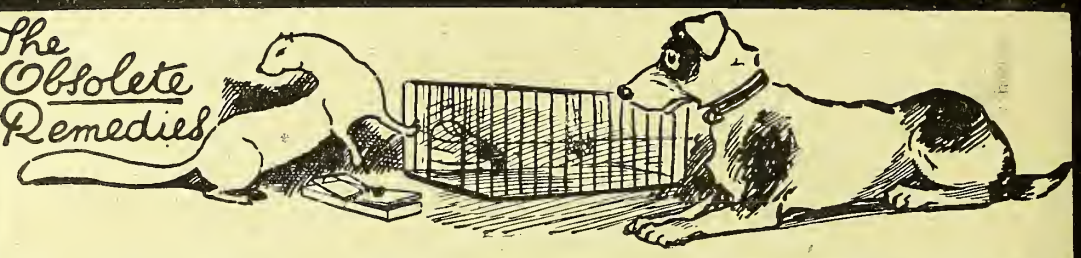
TRADE MARK.

An Elastic Bandage. Containing no Indiarubber. Superseding Elastic Stockings, Webs, Bandages, and at half the cost. Three sizes, about 2, 2½, and 3½ inches wide. **Excelsior Crepe Abdominal Binders.**—Useful after many Abdominal Operations, and for ladies after confinements. Two sizes: 8 & 11 in. wide.

CAUTION.—Beware of fraudulent and useless imitations, and reject all Bandages not bearing the above Trade Mark on the Wrappers.

Wholesale of
W. GIMBER & SON, Surgical Bandages and Instrument Makers, 44 Queen's Rd., Peckham, LONDON, S.E.15.
And of all Wholesale Druggists, Chemists, Surgical Instrument Makers, &c.
Telephone: New Cross 1691. Descriptive Circular & Price List on applicat on.

The Obsolete Remedies



A READY SELLING RAT POISON

of proven value. It is on the Government List. It always retains its effectiveness—therefore creates no bad stock. Now being advertised in the Press. Helping your sales and therefore ours. Extirmo retails in tins at 7½d., 1/3, 2/6, and 5/-, and shows you a splendid profit. *Are you stocking Extirmo?* Write to-day to the manufacturers for full particulars. Prompt deliveries for either Home Trade or Export.

E. H. WRIGGLESWORTH, Ltd.,
ST. ANDREW'S WORKS, HULL.

The Absolute Remedy.

EXTIRMO Regd.
KILLS RATS.
and MICE

Farmers protect Crops from BIRDS and ROT by using
CORVUSINE D.G. A Household Word with them.
Well Advertised. No Trouble to Sell.
Fix up your Agency now.
Liberal terms and particulars from Manufacturers—
HAWKER & BOTWOOD, Ltd., 50 Mark Lane, London, E.C. 3.

Doomo Airship Fly Band
Write for quotations.
A wide, long band, sticky on both sides.
SMITH & CO.,
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BATTLE, MALTBY & BOWER

Victoria Chemical Works - LINCOLN.
MANUFACTURERS OF
SHEEP DIPS
(Liquid Powder and Paste)
CATTLE WASH
EMBROCATION
(Veterinary and Household)
WEED KILLER
DISINFECTANTS
PACKED UNDER CHEMIST'S OWN NAME IF REQUIRED
WRITE FOR PRICE LIST.

Continuous and Steadily Advertised Goods
FOR DESTROYING RATS AND MICE

DANYSZ VIRUS

Retail Prices (protected).		Net Wholesale Prices.
Virus for Rats and Mice, single tube,	2/-	... 15/- per doz.
3 tubes,	5/-	
Virus for Mice only - single tube,	1/6	... 9/- „ „
3 tubes	3/-	

Date-expired tubes returned to us postage paid will be exchanged free of charge.

Danysz Virus in Liquid Form

Retail Price.		Wholesale Price.
Quart Bottles	6/- each	... 4/6 each
Pint „	4/6 „	... 3/9 „

HALLER'S EXTRACT OF SQUILL and DANZO RAT KILLER

Discount off Retail Prices 25% Monthly Account, or 33⅓% cash with order.

	Retail	Monthly a/c	Cash with order
½ gall. tins ...	10/-	7/6	6/8
1 „ „ ...	18/-	13/6	12/-
5 „ „ ...	80/-	60/-	53/4

DANZO BEETLE POWDER

For destroying Blackbeetles, Cockroaches, Crickets, &c.

Retail Prices (protected).	Wholesale Prices. per Doz
In tins 3d. ...	In boxes of 2 doz. 2/1
„ 6d. ...	„ „ 1 „ 3/8
„ 1/- ...	„ „ 1 „ 7/5
„ 2/6 ...	„ „ 1 „ 18/-

Danzo Beetle Powder will not deteriorate by keeping.
CARRIAGE PAID ON ALL ORDERS.

To be obtained from
HALLER LABORATORIES, LTD.,
325 Borough High Street, LONDON, S.E. 1
Telegrams: "Virudana, Sedist. London." Telephone: Hop 2717.

These advertisements are appearing in weekly and monthly periodicals, and are read by thousands of housewives.

Could you supply Movol if you were asked for it?

THE continued high prices for new white linen is making Movol very popular. "A cover stained with Ironmould loses its terror where the Movol magician is, and so easily, too" —this is what *your* customers are reading every week.

Could *you* supply Movol if you were asked for it or would you have to turn them away to "the other man?"

By a judicious display of Movol showcards and a moderate supply of handy tubes these ladies will come *your* way. And why not?

TRADE MARK
MOVOL
Regd

STAIN REMOVER

Removes Ironmould, Rust, Fruit and Ink Stains from White Linen, Clothing, Marble, etc.

Send a postcard to-day for particulars. A quantity of Showcards will be sent with your supply. Write the Makers—

WM. EDGE & SONS Ltd., Bolton

(The Drummer Dye People).

ESTABLISHED 1889

SEND FOR

Capping TWINE

TO

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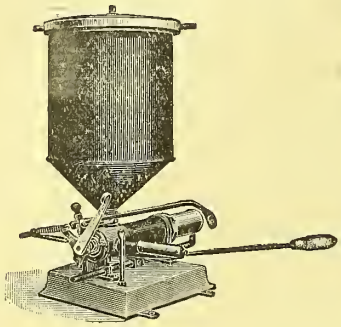
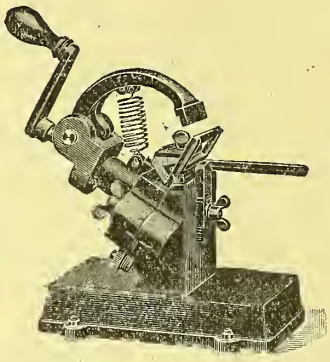
Capping Materials Specialists,

7 & 8 South Street, FINSBURY, LONDON, E.C. 2.

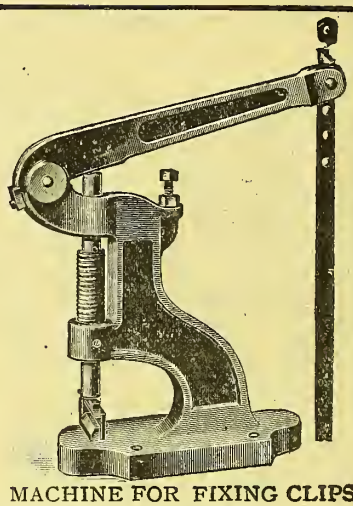
PHONE: CLERKENWELL 1588. WIRES: "ETNOCEL, AVE, LONDON."



MACHINE for FILLING COLLAPSIBLE TUBES. From 1 to 10 gallons CAPACITY. Output 30 to 40 gross tubes per day.



MACHINE FOR CLOSING AND FOLDING COLLAPSIBLE TUBES. Suitable for all sizes of tubes. ⅜″ to 1½″ dia.



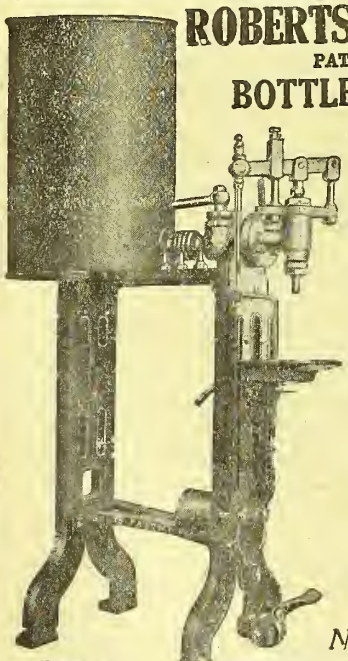
MACHINE FOR FIXING CLIPS to ends of collapsible tubes.

Can be seen in operation at—

BROOKS, PEEL & CO., LIMITED

24 CITY ROAD, LONDON, E.C. 1.

MANUFACTURERS of Collapsible Tubes in LEAD, TIN-COATED and PURE TIN. SPRINKLERS for PERFUMES, BRILLIANTINE, CREAM, &c. SCREW-CAPS for JARS, &c., in WHITE or LACQUERED TINPLATE, NICKELLED ZINC, ALUMINIUM, &c. SHAVING-STICK CASES, LIP SALVE TUBES, &c. &c.



ROBERTS' ORIGINAL
PATENT
BOTTLE-FILLING MACHINES

Don't waste money on Imitations, buy **Roberts' Machines** which actually **Created the Records** for **CLEANLINESS SIMPLICITY, and Rapidity in Bottle Filling.**

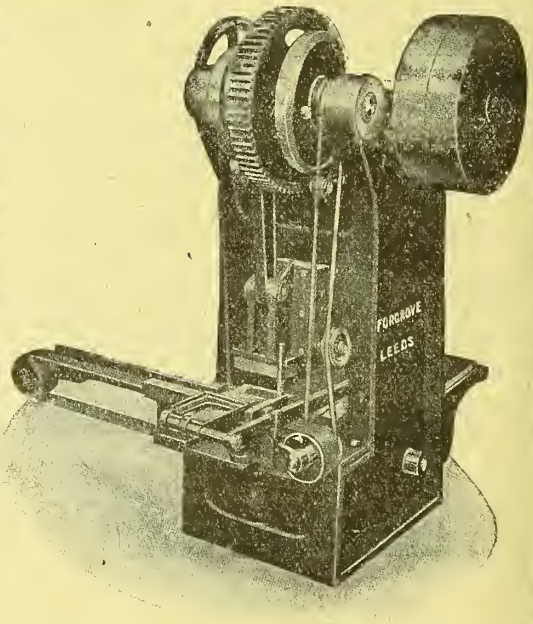
NOTE the address

"Nelson."

ROBERTS' PATENT
FILLING MACHINE CO.,
33 ROUNDCROFT ST., BOLTON.

OUR LATEST PATENT "ALPHA" PRICE £14, WILL FILL 10 GROSS BOTTLES PER HOUR.

Write for Particulars. *All rights reserved.*



SOAP STAMPING MACHINES.
Output, 50 pieces per minute.

THE FORGROVE MACHINERY CO., LTD.
DEWSBURY ROAD, LEEDS.

DRY CELLS

FOR

ELECTRO-THERAPEUTICS

Faradisation, Galvanisation, Ionic-Medication, Galvano-Cautery, Medical Lamps, etc. etc.

MANUFACTURED BY

SIEMENS BROTHERS & CO. LTD.

WOOLWICH — LONDON, S.E. 18

Telegrams: "Siemens Woolwich" — Telephone: City 6400

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PHOTO ALBUMS

OF

SUPERIOR QUALITY & DESIGN

PASTE-ON and SLIP-IN.

Stiff or Flexible Covers in Canvas or Leather.
Retail Prices range from **9d.** to **35/-** each.

When a dealer sees our Albums he orders, and when he stocks them he becomes a regular customer. We are anxious therefore, that every Chemist and Photogr phic Dealer should see our goods, and we are offering to send a **30/-** *Cash Parcel, Carriage Paid,* to any part of the United Kingdom. The parcel will contain a choice selection of our best selling lines, and an Illustrated Catalogue will be enclosed. Send for this 30/- parcel and then make up a Stock order.

REGINALD E. CARTER, Ltd.

12 Lower Seymour St., Portman Sq., London, W 1.

You will Save **Time, Trouble and Money** by sending your inquiries in the **first place to the men who know their Trade.**

H. MILLS & SONS,

The Premier Chemists'

SHOPFITTERS,

Designers and Manufacturers,

163-165 Old Street, London, E.C.

We have a world-wide reputation for designing and fitting up-to-date Pharmacies.

Large Stock of Second-Hand Chemist Fittings always in Stock.

Telegrams: "THERMORIGI BRIGHTON."

TRADE MARK: "THERMORIGI," REGISTERED.

Member of **British Lamp-blown Scientific Glassware Manufacturers' Association, Ltd., and Glass Research Association.**

E. S. ARRIGHI,

CHEMICAL AND EXPERIMENTAL GLASS BLOWER AND THERMOMETER MAKER,

39 & 40 BOND STREET, BRIGHTON.

W. G. MARSHALL,

Chemical and Experimental Glass Blower and Thermometer Maker.

Works: 47 Red Lion Street, LONDON, W.C.1

25a Hatton Garden, LONDON, E.C. 1.

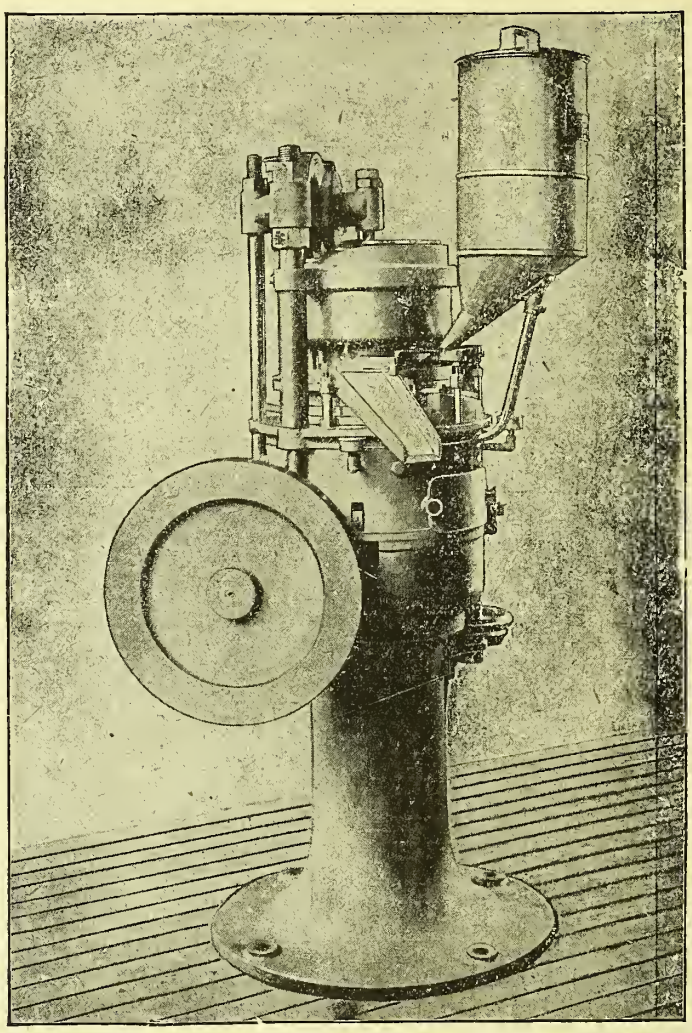
Telephone No.: Central 6374.

Made in two sizes—
12-Punch and 20-Punch.

The 12-Punch

Machine is suitable for tablets from $\frac{3}{8}''$ diameter up to $\frac{7}{8}''$ diameter.

Output up to 400 tablets per minute.



Made in two sizes—
12-Punch and 20-Punch.

The 20-Punch

Machine is suitable for tablets from $\frac{1}{4}''$ diameter up to $\frac{1}{2}''$ diameter.

Output up to 700 tablets per minute.

Patent No. 136302

ROTARY TABLET MACHINE

Floor space, 3 ft. × 3 ft. 4 Horse-Power should be available.

Pulleys are fast and loose and are 12 in. diameter and 3 in. face, and should be run at 350 revolutions per minute.

Extra sets of Punches and Dies can be supplied as required. The worm Gear runs in a bath of oil.

Weight of tablet can be adjusted while the machine is running, and by a patented filling device the degree of accuracy of weight of tablet is very high.

These machines are used with much success where very large production is required.

During the war, we were informed that many of these machines ran 16 hours a day non-stop month after month.

We are also makers of Single Punch machines in various sizes and machines for producing tablets of various shapes.

Punches and Dies for any make of machine are manufactured by us with specially designed machinery for the purpose.

S. W. WILKINSON & CO.

Engineers and Specialists in Chemical and Pharmaceutical Machinery,

WESTERN ROAD, LEICESTER.

Telephone: 3783. Telegrams: "WILKINSON, 3783, LEICESTER."

APPRECIATION!

DEAR SIRS,—**The Bottle Drying Machines** have worked satisfactorily from the beginning; in fact, we do not know how we should have managed without them.

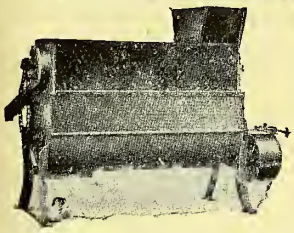
We find the Dryers particularly useful when dealing with "rush orders," which call for large quantities of bottles, as the bottles can be washed and dried—in considerable quantity—inside an hour, whereas under the old system it would have taken the best part of a day, and then the bottles would not have been so completely dried as under the present system.

Yours faithfully,
W. B. CARTWRIGHT, Ltd.,
Rawdon, near Leeds.

Sutcliffe Ventilating & Drying Co., Limited,
Cathedral Gates, MANCHESTER.

Telephone No.: CITY 3920. Telegraphic Address: "VENTILABRO."

"LEYSELL" Sifting and Mixing Machines.



Made in various sizes for power or hand.

For mixing a large variety of dry powder.

Quick delivery. Inquiries solicited.

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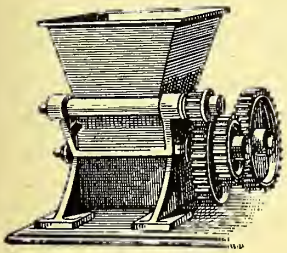

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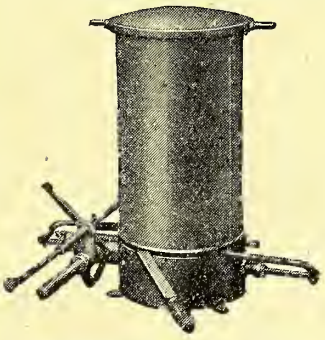

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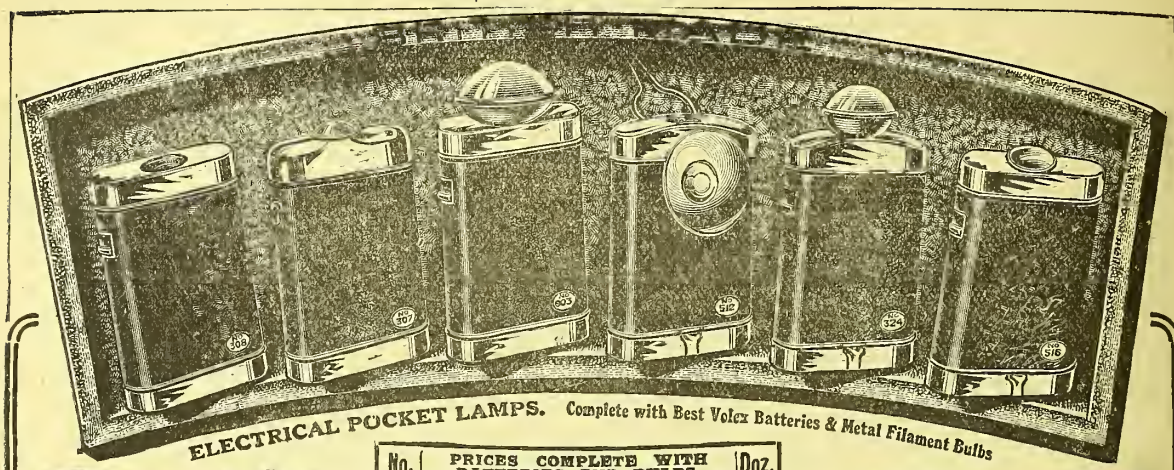

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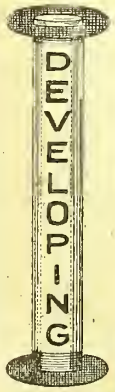

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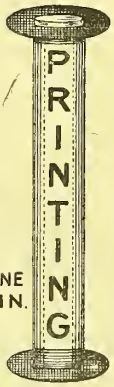

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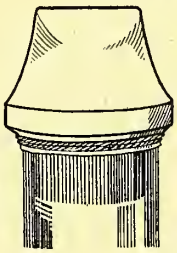

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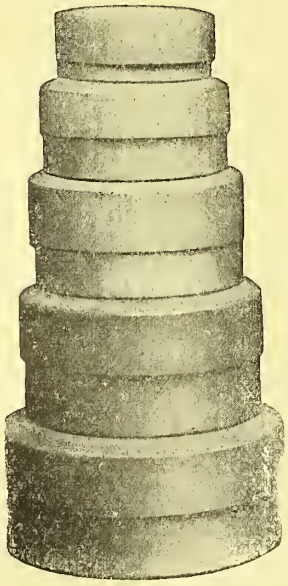

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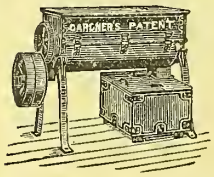

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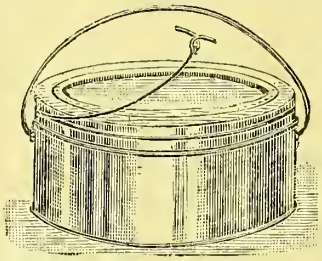

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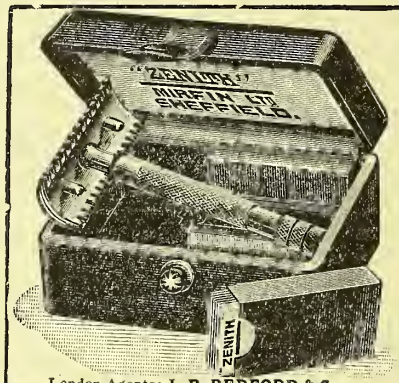

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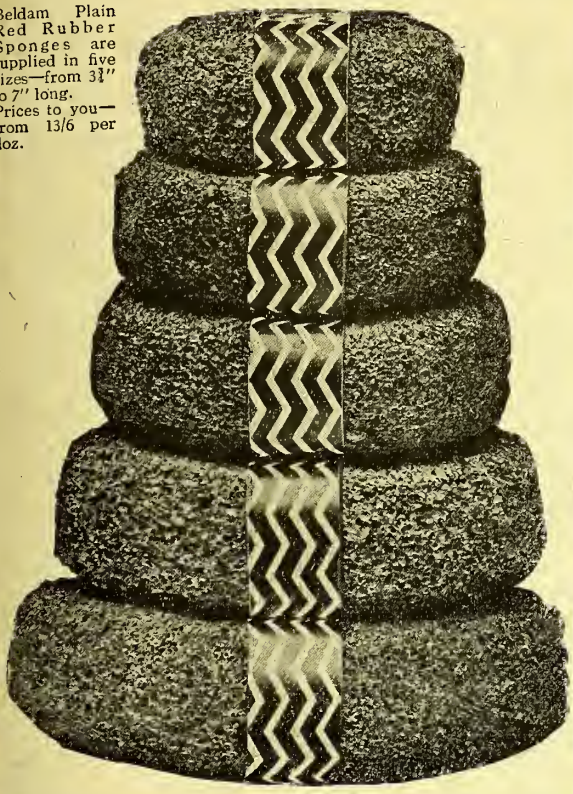

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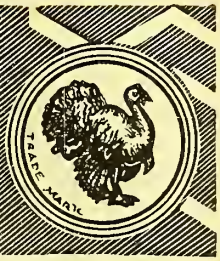

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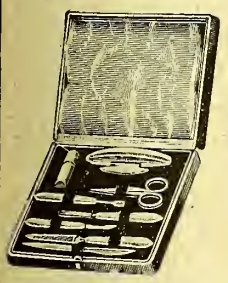

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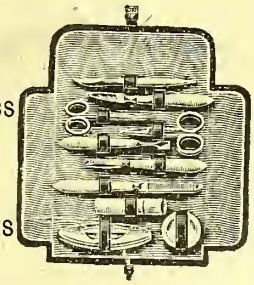

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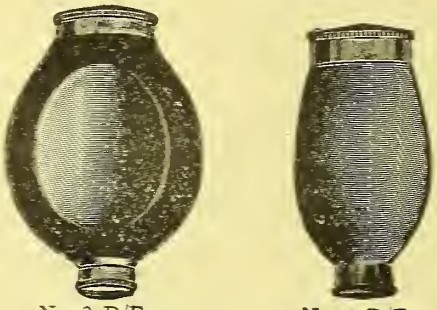

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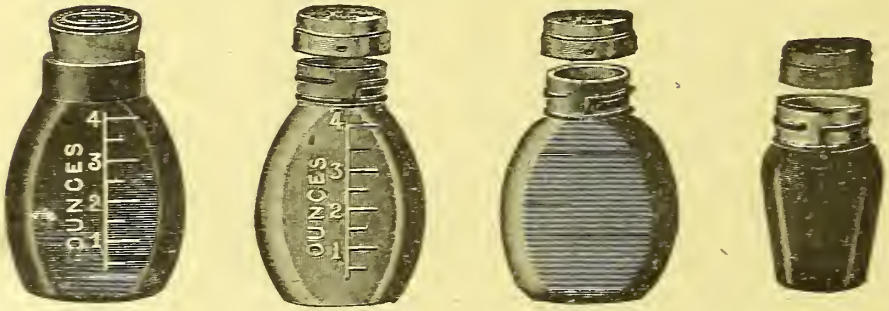

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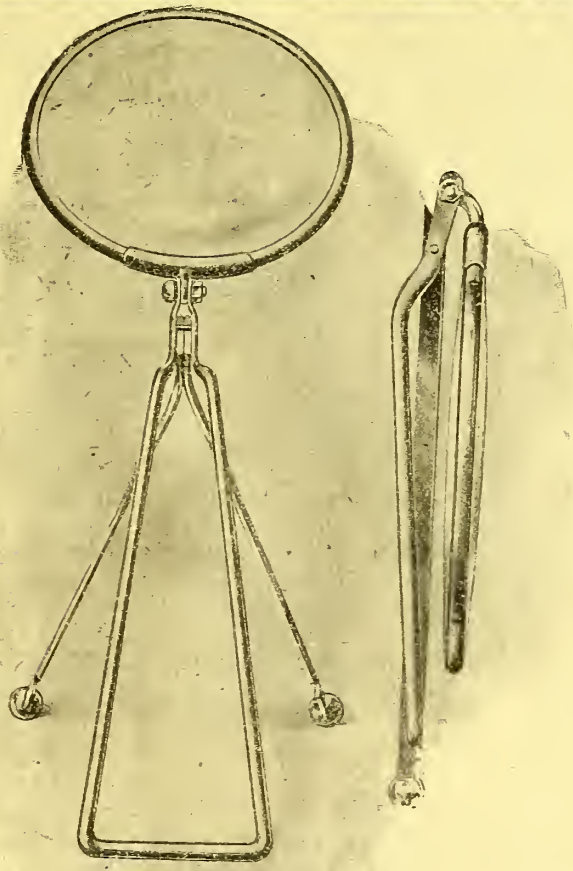

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The most practical form of Reading-Glass.

PRICE 126/- DOZ.

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OYEZ! OYEZ!

"The man who whispers down a well
About the goods he has to sell,
Won't glean the blinking golden dollars
Like him wot climbs a tree and hollers."

(Author unknown, apparently American.)

MAY, ROBERTS' MONTHLY SUPPLEMENT IS READY

This List, our only traveller, who calls on all our customers once every month, shows all corrections in prices up to the end of July.

Recent editions of the various Departmental Lists will be sent to any Chemist on receipt of a postcard.

MAY, ROBERTS & CO. LTD.

7/13 CLERKENWELL ROAD, LONDON, E.C.1.

16 WESTMORELAND ST., DUBLIN,
and 41 UNION ST., PLYMOUTH.

THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST. LONDON, E.C.4.

AUGUST 28, 1920

This Supplement is inserted in every copy of The Chemist & Druggist

THE CHEMIST AND DRUGGIST SUPPLEMENT
REVISED ADVERTISEMENT TARIFF.

Businesses Wanted and for Disposal, Premises to Let, Goods and Shopfittings for Sale, and Agencies: 6/- for **50** words; every additional **10** words or less, **6d.**

SITUATIONS OPEN: 6/- for **40** words; every additional 10 words or less, **6d.**

SITUATIONS WANTED: 2/- for **18** words; every additional 10 words or less, **6d.**

Legal Notices, Tenders, Auctions, and all specially spaced announcements, **1/3** per nonpareil line (12 lines=1 inch single column).

Miscellaneous (Wholesalers') Section, for odd and second-hand lots; **10/-** for **60** words; **1/-** for every additional **10** words or less.

EXCHANGE COLUMN (for Retailers, etc.). **Twopence** per word, minimum **2/-**

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In each case replies may be addressed to a registered number or nom-de-plume, c/o this Office, **at a charge of 1/- extra** for each advertisement.

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All advertisements are prepaid, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

THE CHEMIST AND DRUGGIST, 42 Cannon Street, LONDON, E.C.4.

Telephone: Central 3617 (3 lines). Telegrams: "Chemicus, Cannon, London" (2 words).

EARLIER CLOSING FOR PRESS.

Will advertisers please note that until further notice it will be necessary that Advertisements intended for the Supplement must reach us not later than the **FIRST POST THURSDAY MORNING.**

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

Telephone No: City 2283.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION,

.—LONDON DISTRICT (Suburb).—Ready-money Business; urns between £50 and £55 weekly, at excellent profits; low t; no immediate opposition; further details on application.

.—LONDON, N.—Drug Store; established over a century; urns £19 to £25 weekly, capable of increase; double-fronted p; there is a profit rental of £95 per annum; price £900.

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.—POPULAR HEALTH RESORT.—General Retail and Dispens- Business, established by vendor 24 years since; single-fronted p, well fitted and heavily stocked; house contains 5 bedrooms, reception rooms, bathroom; garden; 14 years' lease to run; ther details on application.

.—INLAND HEALTH RESORT.—Very old-established Business; ellent position in main thoroughfare; returns exceed £50 kly, at full prices; there is a residence, with side entrance, hroom; price about £1,600, or valuation terms entertained.

—SURREY.—Good-class Retail and Dispensing Business, ate in charming locality; returns upwards of £4,500, at good es; further details will be furnished on receipt of a banker's rence.

—LONDON, E.—Cash Retail Business, situate in busy work- class locality; good opening for N.H.I. Dispensing; returns, er unqualified management, £1,200 (present rate); *net profit* %; vendor estimates stock and fixtures at £500; price £650.

8.—GREAT WESTERN MAIN LINE.—Old-established Business, high-class Retail and Dispensisg; returns between £3,500 and £4,000; full prices are obtained for everything; well-appointed shop; vendor's own property, which may be purchased; good opening for two energetic men.

9.—KENT (Market Town).—Good Middle-class Business, Retail and Dispensing; returns upwards of £2,400, at fair prices; well-fitted shop, fully stocked; new lease will be granted; price to be agreed.

10.—NORTHANTS.—General Retail and Dispensing Business; returns exceed £60 weekly; *net profit about* 25%; moderate rent; held on lease; further details on application.

11.—NORTH OF ENGLAND.—Lock-up Pharmacy; returns, present rate, £70 monthly; scope for considerable increase; *net profit* 25%; rent £30; new lease will be granted, or premises may be purchased; price to be agreed.

12.—SCOTLAND.—Unopposed Mixed Business; returns exceed £20 weekly, at good prices; modern fitted shop; small house; price £600; the premises may also be purchased for a further £600.

13.—SOUTH COAST.—For disposal, Wholesale Business, dealing chiefly in packed goods; returns about £6,000 per annum; model factory; two floors; electric light; moderate rental; held on lease; price to be agreed.

14.—STAFFS.—General Retail Business; returns over £2,500; books open to investigation; double-fronted shop; moderate rental; new lease will be granted; price about £1,500.

VALUATIONS FOR STOCKTAKING.

essrs. O. & Co., desire to emphasize the necessity of a periodical Statement of Account, by which means alone **Profit, the alue of Business, &c.,** can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and make **Special erms** for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.

BERDOE & FISH

VALUERS & TRANSFER AGENTS

35 Jewry Street, Fenchurch Street, E.C.3.

Telephone: 1809 Central.

NO CHARGE TO PURCHASERS.

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1. LONDON (SURREY SUBURB).—Good middle-class light retail dispensing and prescribing business, very little N.H.I., splendid opening for photo. Returns nearly 1,750*l.*, increasing; main-road position; plenty of scope; convenient house, bathroom, and small garden; well fitted pharmacy and good stock. Selling solely on account of age and ill-health. Price, 1,200*l.* cash.

2. LONDON, S.W.—Wholesale manufacturing business for disposal, comprising freehold factory, well equipped, and all in running order; fine central position. Returns nearly 7,000*l.* Price for the freehold, plant and machinery, 2,000*l.* Stock at valuation, reduced to suit purchaser.

STOCKTAKING.

We are now booking dates for September and October, terms sent on application.

Established 1870.

THOS. TOMLINSON & SON

CHEMISTS' VALUERS, TRANSFER AGENTS, AND EXPERT STOCKTAKERS.

48a MARKET STREET, MANCHESTER.

Established over Half a Century.

Telegraphic Address: "Tomtom."

SOUTHALL BROS. & BARCLAY, Ltd.

(Valuation and Transfer Dept.)

Special Terms for Probate and Trading Accounts, Income Tax, etc.

For particulars apply—

19, 20, 21 LOWER PRIORY, BIRMINGHAM.

BRETT & CO.

All Valuations have the personal attention of F. J. Brett, M.P.S.

Transfer Agents & Valuers,

73 LAUREL ROAD, LEICESTER.

Telephone: 1934.

£800 RETURNS, BIRMINGHAM.—Light Artisan Retail; neglected; ample scope for increase by personal attention; fixtures, fittings, etc., £250; stock at valuation, about £250; low rent.

We have Buyers with Cash Ready for all Classes and Sizes of Businesses.

STOCKTAKING IS NOW A BUSINESS NECESSITY

Write for Terms to

Ernest J. George

202 Birmingham Road,

(Thirty Years' Drug Trade Experience) ***Walsall.***

Chemists' Accountant, Valuer, Transfer Agent and Expert Stocktaker for Sale, Purchase, Income Tax, etc.

Books Written Up. Balance Sheets Prepared. Prescriptions Priced.

PARSON C. BAKER Ph C., M.P.S.,

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174 Victoria Street, S.W.1. Tel.: Victoria 27.

Valuers for Purchase, Sale, Probate, Income Tax, Balance Sheet, &c.

Recommended by The British Drug Houses, Ltd., Messrs. Meggeson Ltd., Messrs. Barclay & Sons, Ltd., and many other leading Wholesale Houses. Valuers to the Association of Manufacturing Chemists.

THE

Association of Manufacturing Chemists, Ltd.

31 KIMBERLEY HOUSE, HOLBORN VIADUCT, E.C.1

HAVE THE FOLLOWING BUSINESSES FOR DISPOSAL:—

LONDON (Pleasant Suburb).—Handsomely fitted, double-front shop in busy main thoroughfare; returns about £1,650 p annum; long lease at nominal rent; excellent stock and sple did house accommodation; price for goodwill and lease, £45 stock and fixtures at valuation, about £800.

HAMPSTEAD (near).—Good-class Cash Business; returns £28 £30 per week; established upwards of 80 years, and in prese hands 7 years; long lease at an easy rental; price £1,4 or offer.

IN THE HEART OF THE CITY.—A well-established, good-cla Retail Business; returns between £27 and £30 per wee under Manager, at very profitable prices; lock-up shop, wi back parlour; handsomely fitted in mahogany; excellent stoc and could easily be worked by Chemist single-handed; gro profits about 50 per cent.; price £1,200 all at.

PICCADILLY.—Good-class Retail Business; lock-up shop, nic fitted and well stocked; returns, under Manager, £1,800 p annum; net profit about £350; price to quick buyer £1,25

FOR SALE.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

BENT-GLASS Mahogany Counter Showcase; velvet-lined tra mirror doors; space for change mat; good condition; 5 ft. 1½ ft. × 11 in. Offers to Warner, 106 Stafford Road, Wolv hampton.

COMPLETE Set of Chemist's Fixtures and Fittings for Sa very best oak. 106 Station Road, Bexhill-on-Sea.

EUREKA Tablet Machine, adapted for power or hand, compl with fast and loose pulleys; also Shaft Pulley and 12 Belt; condition as new. Apply 145/1, Office of this Paper.

10 GROSS 4-oz. W.F. Flats; 7 gross 4-oz. Limes; 4 gross 6- Limes; £15 the lot to clear. Crawford, 1 Dyer's Buildin Holborn, E.C. 1.

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SCOTTISH Chemist, with flourishing business, nearly £9,0 turnover, seeks partner to undertake responsible mana ment and give proprietor more leisure, or smart, energetic, g organising Manager; pushing Salesman essential; accustomed quick sales; excellent chance; give business experience; finan standing, age, if married, strictly confidential. Apply 136/ Office of this Paper.

PARTNERSHIP entertained in good-class Retail business Managership with view to succession; good experience (ei years Manager); small manufacturing or Wholesale consider £1,000 available; replies treated in strict confidence. Ap 143/5, Office of this Paper.

SALES BY AUCTION.

G. R.

MINISTRY OF MUNITIONS.
BY DIRECTION OF THE DISPOSAL BOARD.
(Miscellaneous Stores Section.)

The Wholesale Drug Trade.
SPECIAL CLEARANCE OF

TABLET BOTTLES,

About 500,000, Graded into Sorts.
) With Screw Necks. Complete with Nickel Caps. White and Amber. No. 7.
) Blaud's Shape. Blue and Amber.
) Formamint Shape for Cork 13/16 in. Green and Amber.

Also about 15,000
White Kalis, about 2 oz., ¾-in. mouth.
'he above are mostly packed in cases of 200, and at present tain Bi-sulphate of Soda Tablets, but they ARE OFFERED R THEIR VALUE AS BOTTLES, due allowance being made valuation for the expense incurred in emptying and cleaning.
This stock is located at
CATTLE MARKET, DEPTFORD.
rder to view may be obtained upon application to Room 38, scellaneous Stores Section, D.B.S.c., Earl's Court.
urther quantities are now being graded.
our inquiries are also invited for N. or W. Mouth
WINCHESTERS,
Blue or Green, Stoppered and Unstoppered; also
OTHER BOTTLES SUITABLE FOR THE DRUG TRADE.

SURPLUS MACHINERY FOR DISPOSAL.

TABLET MACHINE.
ge, powerful geared Machine, for Tablets up to 2½ in. × 1½ in., by Wilkinson.
OINTMENT MILL.
nett & Shears' "Arto," marble bed and roller, capacity 28 lb., new condition.
SHEARS' MULSER.
Improved pattern. As new.
RDNER'S SIFTERS AND MIXERS, one for power, one for hand.
INTEGRATER, Size O, by Harrison, Carter. As new.
STE MIXER, brass lined and brass blades. Capacity 56 lb.
REKA TABLET MACHINES (two), fitted for hand or power.
NTRAL TUBE-FILLING AND CLOSING MACHINE.
BERTS FILLING MACHINES (two) one with gas-heated coil.
All can be seen working.
r particulars apply 21/9L, Office of this Paper.

BUSINESSES FOR DISPOSAL.

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IRMINGHAM.—Pleasant suburban Business; gross returns £4,000; net profits about £1,400; price for quick sale 500; owner retiring. For further particulars apply etiring," c/o Southall Bros. & Barclay, Ltd., Chemist ers, Birmingham.

ERTS (14 miles from London).—Well-fitted Shop, best position in town, near station; turnover £2,288; gross profit £1,127 r Manager; easy to run single-handed; splendid opportunity pushing man; price £1,700; good lease and low rental, house. her particulars apply 143/33, Office of this Paper.

NCASHIRE (WEST).—Good-class, progressive Family Retail Chemist and Dispensing Business, in high-class residential ict; practically cash trade; well fitted shop, well stocked; of dwelling-houses attached; private entrance; price for lot, ding property, £3,000. Apply David J. Lewis, Victoria nbers, Birkdale.

NCS.—Profitable General Retail, with Photo; main street; well stocked; low rent; health sole reason for disposal; llent opportunity for an energetic man; price £650; full iculars on application. "X." (145/7), Office of this Paper.

ANCHESTER.—Old-established Business, in working-class district; returns £1,500, could be increased by energetic qualiman; good profit on own speciality; regulated sales; good ter Prescribing; opening for N.H.I., Optics, and Extractions; le-fronted shop; main street; price, including freehold pro- (two shops and dwelling-houses), £1,200; seven living-s, two storerooms, three cellars, yard; fixtures include hed wardrobe, and bookcase and writing-desk combined. y 146/9, Office of this Paper.

WORCESTERSHIRE.—Old-established Chemist's Business and valuable Freehold Property; best position in town, near Bank and Post Office; well fitted and fully stocked; front recently painted; General Retail, Dispensing, Optical, and Photographic; large, pleasant house; south aspect; nicely laid-out garden, planted choice fruit; possession early October; full details and price to cash purchasers only. Dowty, Chemist, Abbey Pharmacy, Pershore.

FOR Sale as a going concern, the old-established Business of Wholesale Druggists, Oil and Colour Merchants, for many years carried on under the style of B. North & Co., at 22-24 St. James Street, Nottingham. For particulars apply to Robert Rhodes, Chartered Accountant, 18 Low Pavement, Nottingham.

HIGH-CLASS West-End Branch Pharmacy, well fitted and stocked; shop and basement; very low inclusive rental; on lease; a sacrifice for immediate disposal. Further particulars from A. E. Corrick, Plantain Place, Crosby Row, Boro', S.E. 1.

OLD-ESTABLISHED Proprietary for Sale, including stock; owner deceased. Apply "Executor," 40 Elliott Road, Chiswick, London, W. 4.

PROFITABLE, high-class Retail Dispensing and Photographic Business in best residential suburb of large city; turnover nearly £4,000; top prices; freehold shop and premises, well stocked and fitted; business, as organised, capable of great extension; business man with £3,500 cash at command can secure possession, balance remaining on mortgage on the property; please furnish bankers' reference in writing for full particulars; no agents. "Development" (145/23), Office of this Paper.

AGENCIES.

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The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

IRELAND.—Irish Pharmaceutical Chemist having covered Ireland for past 2½ years as representative for a well-known London house, is open to engagement for Drug, Tablet, or Sundries house; first-class connection all over Ireland. Replies "L. P. S. I." (141/20), Office of this Paper.

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AGENTS wanted for the Sale of "Liquid Ice" in the Midlands, Eastern Counties, and the South of England. Apply, by letter, to The Liquid Ice Co., Ltd., 100 Jermyn Street, S.W. 1.

COMMISSION Travellers and Buying Agents wanted for charming novelty selling to Chemists in thousands; shows excellent profit Retail, Wholesale, and representatives; state territory and present engagements. "G.," 73 Horsford Road, London, S.W. 2.

ESTABLISHED firm, already selling English Patent Medicine, require another first-class line for Belgium and Germany. Wood & Drew, 37 Montagne aux Herbes Potagère, Bruxelles, Belgium.

ESTABLISHED and well-known live firm, actively represented, are prepared to act as sole selling Agents or Distributors for specialities in Druggists' Sundries of superior quality and manufacture; a complete and modern sales and advertising staff provide a unique opportunity for makers of specialities possessing merit, to market such goods to the very best advantage. Please address in first instance to 5/26C, Office of this Paper.

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OLD-ESTABLISHED, well-known firm of Manufacturers' Representatives, with 16 branches spread out over above territories, increasing to 30 by 1921, desire Sole Representations of firms who are anxious to build up new connections in these countries or get back old business lost touch with since 1914; advertisers offer services of finest business-getting organisation extant for getting back or new market purposes. Address 16/2K, Office of this Paper.

THE principal of an important South African firm of Wholesale Chemists now in this country requires sole Agencies for that country; first-class lines only entertained; Proprietary, Perfumery, Toilet Goods, and Packed Specialities. Apply 139/32, Office of this Paper.

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ADVERTISER, with necessary capital, wishes partnership, or would purchase entire goodwill of genuine, established Proprietary Article, such as Toilet, Medicinal, or Domestic Speciality, or Patent Medicine for Drug or allied business; sample, full particulars, net profit covering several years, turnover, outlet, in confidence. Apply 136/320, Office of this Paper.

CHEMIST wishes to purchase small, good-class Patent Medicine or Proprietary Article Business, or to acquire active interest in larger concern; advertiser fully understands the business. Please send particulars and estimate of cash required, and state whether books could be examined, in strict confidence, to "Adman" (P.C.B. 11/350), Office of this Paper.

DRUG Store wanted, North (Lancashire coast preferred; reasonable price paid; unqualified working Partnership or Managership with a view to succession entertained; please send full particulars as to price, turnover, net profits, and rent, which will be treated in strictest confidence. Apply 143/7, Office of this Paper.

DRUG STORE required; North-East Coast preferred; suitable for unqualified man; shop, with house; neglected business, in good position, not objected to. Apply, with full particulars, to H. E. P., 32 Petterill Street, Carlisle.

GENUINE Business wanted in good-class district; neglected one not objected to; house accommodation necessary; price not exceeding £700, unless part can remain (London and North of England excepted); must bear investigation. Full particulars, in confidence, to "Amore," Smith's Bookstall, Hunstanton.

GENUINE Chemist Business wanted; turnover £3,000 to £4,000; Bradford district preferred, but not essential; must bear strictest investigation. Full particulars, 145/24, Office of this Paper.

GOOD-CLASS Retail Chemist's Business wanted in Durham or North Yorks; or Managership with view to early succession considered. Particulars to Edwards, 14 Fountain Street, Guisboro', Yorks.

PHARMACIST, with capital ready, desires to purchase well-established Retail Business, of medium size, or managing partnership in large business; scope for developing own Proprietaries desired; good stand essential; medium-sized provincial town preferred; please send full particulars; replies will be kept strictly confidential. "Galen" (P.C.B. 11/35), Office of this Paper.

SOUND Mixed Business wanted, with good living accommodation; returns between £2,000 and £3,000 per annum. Please submit usual particulars, also details of lease and approximate price, to C. M. Harrison, 3 Tideswell Road, Eastbourne.

WANTED to purchase, a sound Chemist's Business in Midlands; about £1,500. Send full particulars to Robert Bell, Bakehouse Hill, Kettering.

SITUATIONS OPEN.

RETAIL.

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

ASCOT.—Dispensing Assistant, lady or gentleman, required September 6th; best-class business done. Apply, giving particulars of experience, salary required, etc., to Stewart, Chemist, Bracknell.

BERMONDSEY AND ROTHERHITHE POOR-LAW HOSPITAL, LOWER ROAD, ROTHERHITHE, S.E.

REQUIRED, at the above Institution, a properly qualified, whole-time Non-Resident Dispenser and Pharmacist.

Salary £300 per annum, rising £25 per annum to £350 per annum.

Forms of application, returnable by 10 a.m. on the 20th September, 1920, can be obtained from the undersigned by sending a stamped addressed envelope, and particulars of duties, etc., from the Medical Superintendent of the Hospital.

HENRY H. REEVE,
Clerk to the Guardians.

BIRMINGHAM.—Unqualified Assistant, capable Dispenser, smart Salesman, good address, for high-class business. Apply, with full particulars, General Manager, Hedges (Chemists), Limited, Dale End, Birmingham.

BUCKINGHAMSHIRE.—Wanted, on September 27, Junior or Improver, one just finished Apprenticeship preferred, for average country business; outdoors. Write, stating salary required, Weatherill, Chemist, 67 The Broadway, Chesham.

HANTS.—Wanted (at once), qualified Manager for Pharmacy; knowledge Photography and Optics; single preferred; age 35-40 years; for permanency; comfortable berth. Apply by letter, stating salary and references, to "Burgess" (145/19), Office of this Paper.

HULL.—Wanted, Assistant, about 21, outdoors, in good-cla Retail and Dispensing business; two kept. Apply, stati age, height, salary required, and references, to Metcalfe & S Pharmacists, Whitefriargate, Hull.

LINCOLNSHIRE.—Junior Assistant (male) wanted early September for Retail and Dispensing business in count town; must be active and reliable; no Sunday duty; outdoo Apply, stating age, experience, salary required, and referenc to W. Spyvee, 30 Southgate, Sleaford.

LIVERPOOL.—Capable Junior Assistant (male) for brisk C business. State age, height, experience, salary (outdoor and references to John Bain, 4 Quadrant, Lime Street, Liverpo

LONDON, E.—Qualified Manager required for quick cash Ret business; excellent opportunity for a man anxious to m progress. Apply "E. I." (143/131), Office of this Paper.

LONDON, S.W.—Young lady Assistant required for Light Re business; permanency; state age, salary required, and w at liberty. Apply "C." (143/133). Office of this Paper.

LONDON, W.—Elderly qualified Chemist required immediate comfortable and permanent post. Apply "N. H." (143/1 Office of this Paper.

LOWER BROUGHTON, MANCHESTER.—Second Assist unqualified, for Counter and Dispensing. Apply by let giving full particulars of experience and salary required, H. Bellringer, 20 Great Clowes Street.

MANCHESTER (SALFORD).—Wanted, immediately, quali man to manage branch; lock-up shop; working-class distr one-man shop; hours 9 a.m. to 8 p.m., 1 o'clock Wednesd one hour Sunday duty. Apply (by letter), stating age, exp ence, salary expected, etc., to W. F. Cuttiford, 193 Langwo Road, Pendleton.

MIDLAND.—Elderly, qualified Assistant required; easy ho permanent position; work light. Apply "A" (143/1 Office of this Paper.

NELSON.—Junior Assistant required for good-class Dispen and Photographic business (Photographic experience es tial); permanency and generous terms to right man; give particulars as to salary, experience, references; no Sunday w 48½-hour week. Briggs, Chemist, Nelson.

RUGBY.—Junior Assistant (unqualified); age 21-24; mus quick and neat Dispenser; easy hours; good experie state age, height, experience, and salary required. F Chemist, Rugby.

SOUTH DEVON COAST.—Wanted, Junior (outdoors) for g class General, Photographic, and Optical business. A with full particulars, references, and salary required, to 14 Office of this Paper.

SOUTH WALES.—Wanted, experienced, unqualified Assis (outdoors). Apply, stating age and salary require R. L. Hopkins, 88 High Street, Barry, Glam.

TUNBRIDGE WELLS.—Junior Assistant for good-class pensing and Retail, about September 1st; moderate h indoors. Usual particulars and salary required to Dunkl Rogers, 55 High Street, Tunbridge Wells.

WEST END.—Wanted, reliable, energetic Junior; must be recommended: knowledge of French preferred. Full pa lars, photo, salary required, etc., to 147/3, Office of this Pa

WEST RIDING, YORKS.—Unqualified Assistant wante high-class trade; must be good Salesman and accurat penser. Apply, with usual particulars and photograph, to 13 Office of this Paper.

YORKSHIRE, WEST RIDING.—Unqualified Assistant Optical and Photographic experience required; perm and progressive position. State age, experience, and comme salary required, to "B. R." (143/132), Office of this Pape

ASSISTANT, unqualified, for good-class Dispensing bus West London suburb; outdoors; kindly state particul to experience, age, height, and salary required; enclose (to be returned), if possible. Apply "R." (P.C.B. 11/38), of this Paper.

ASSISTANT, unqualified, single, and of good appearanc quired for good-class Dispensing and Photographic bus outdoors; hours 8.30 to 7, Saturdays 7.30; short alternate S duty (for September 20). Apply, giving full particula Charles Gilling, Chemist, Sunningdale, Berks.

ASSISTANT, unqualified, about 25, for good-class Retai Dispensing; experience in Photographic trade essenti Sunday duty, no N.H.I.; easy hours. Apply, stating age, h salary required (outdoors), with references, and enclosing (to be returned), R. Lucas, Bridgend.

CAPABLE and trustworthy, unqualified Assistant wanted or gentleman, with knowledge of Photography pre Full particulars as to experience, references, and salary re to Craven, Pharmacist, Grosvenor Road, Ripley, Derby.

CHEMIST, qualified, wanted to manage branch shop. stating age, experience, and salary required, with of not more than two recent testimonials, to Co-operative S Newgate Street, Newcastle.

COMPETENT Assistant wanted (at once) for permanency in market town; married man to reside on premises; must be energetic and accustomed to brisk business; easy hours; state full particulars and salary required. "Wessex" (144/12), Office of this Paper.

DISPENSER, unqualified, must have good references, in high-class Dispensing business for September 6th; good Dispensing experience, speed and accuracy essential. Stamp, High Street, Hampstead, N.W.

JUNIOR Assistant, unqualified, age about 21, required for General Retail, Agricultural, and Photographic trade. Apply, stating particulars as to experience, height, salary, and enclosing photo, to W. Finlayson, 141 High Street, Stockton-on-Tees.

JUNIOR Assistant for Dispensing Counter; short hours and good experience; give full particulars of training, age, and salary, and enclose photo to be returned. T. O. Barlow, 2 Palmerston Road, Southsea.

JUNIOR Assistant wanted, aged 20 to 22, for middle-class, quick Counter trade, with little Dispensing; comfortable berth; country surroundings, near London; outdoors; to commence September 27. Apply, with photo, references, and salary required, to C. F. Hitchen, Chemist and Optician, 20 High Street, Uxbridge.

JUNIOR.—Wanted, early September, reliable Assistant with Photographic experience, N.H.I. Dispensing; no Sunday duty. State age, experience, and salary required, H. Watts, Chemist, Stretford.

JUNIOR (male) wanted for September 27th; used to Dispensing. Bellamy & Wakefield, Pharmaceutical Chemists, 1 Easy Row, Birmingham.

JUNIOR or Dispenser Wanted, September 13th; outdoors. Apply, with full particulars, photograph (to be returned), G. Elliott & Son, Pharmaceutical Chemists, Walsall.

LADY Assistant wanted; Yorkshire city; Hall qualification preferred, but not essential; must be good Saleswoman and Dispenser. Apply, with photograph and usual particulars, to 139/290, Office of this Paper.

LADY Dispenser wanted (at once) as Assistant for the Ministry of Pensions Hospital, Cannock Chase, Hednesford, Staffs. Apply, stating qualifications and previous experience, to the Medical Superintendent.

LADY Assistant wanted, September 1st; General Pharmacy duties; permanency; please state full particulars, experience, age, references, salary required. Liston, Pharmacist, 351 Fulham Palace Road, Fulham, London, S.W.

SENIOR Assistant, young, energetic, of good experience, and unimpeachable references, for good-class Store business near London; state age, experience, qualifications, and salary required. Apply 143/26, Office of this Paper.

THE Stockport Co-operative Society, Ltd., require the services of an unqualified Assistant for the Drug Department, about 24 years of age, 48-hour week, and no Sunday duty. Applications by letter only, endorsed "Drug Assistant," stating age, experience, and salary required, must be in the hands of the Society not later than first post on Tuesday, August 31st.

By Order of the Committee,
S. TAYLOR,
General Secretary.

UNQUALIFIED Assistant for brisk business, with knowledge of Photography preferred, for last week in September; please give full particulars in first letter. Parkhouse, 70 Beckenham Road, Beckenham, Kent.

UNQUALIFIED Assistant; Dispensing family trade; must be competent. Salary and usual particulars to C. M. Ward, 455 Anlaby Road, Hull.

WANTED (at once), Junior Assistant for Light Retail for Dispensing business. Apply, with usual particulars, to W. Smith, 31 St. Botolph Street, Colchester.

WANTED, September 25th, an unqualified Assistant; must be a good Dispenser; single; outdoors; state full particulars. Green, Pharmacist, Trowbridge, Wilts.

WANTED, Junior for better-class family business; neat Dispenser and good Counter hand; lady with Hall certificate preferred, but not essential; permanency; Margate. Apply 142/27, Office of this Paper.

WANTED, for September 1st, a thoroughly reliable unqualified male Assistant, about 20; must have had good Dispensing experience and a knowledge of Photography. Apply, giving full particulars in first letter as to experience and salary required (outdoors), and enclosing photo, to Bailey, 64 High Street, Highgate, N. 6.

WANTED, at the Royal Infirmary, Sheffield (363 Beds), an Assistant Dispenser (Minor or Hall qualification); applicants, who should have had experience in Hospital Dispensing, are invited to send in applications immediately, with copies of recent testimonials, addressed to the Secretary, The Royal Infirmary, Sheffield; salary £150 per annum, with dinner and tea; hours 9 to 5, Saturdays 9 to 1; about 1 hour alternate Sunday duty.

WHOLESALE.

BORDER COUNTIES.—An experienced Representative is required at once by a well-known Pharmaceutical house for Northumberland, Durham, Cumberland, Westmoreland, and Barrow; an established connection with Pharmacists and Doctors in this territory is essential, and man chosen must be prepared to live in the area in which he works; the opportunity is an excellent one for the right man. Apply, stating salary and other particulars in full, to 4/480, Office of this Paper.

LONDON Traveller wanted to develop the sale of Rosine and De Luzy lines; must be a gentlemanly and sincere Salesman, and already have a connection amongst London Chemists and Stores; just salary and generous commission paid. Write in first instance, giving experience and requirements, in confidence, to W. H. C., W. H. Calnan & Co., 30-32 Ludgate Hill, London, E.C. 4.

SOUTH COAST.—Wanted, for attractive scheme, part-time services of well introduced Traveller already covering ground. Address Manufacturing Chemists, 144 Albany Street, London, N.W.

CHEMICALS.—Merchant firm have vacancy for Buyer and Salesman; knowledge of home and foreign Chemical markets, fluent French and German, a sound merchanting and shipping experience, and ability to work on own initiative are essential; salary according to qualifications, and good opportunities for advancement; replies treated in confidence. Apply 145/4, Office of this Paper.

DRUGGISTS (WHOLESALE).—Hand to take charge of Wet and Dry Counters, Export, wanted (at once). Apply at Apothecaries' Hall, Water Lane, Queen Victoria Street, E.C. 4.

FOREWOMAN required with experience in Packing Department of Chemist, Wholesale; able to control staff of girls. Apply, stating experience and salary required, to "Z.," c/o Wilkes Bros. & Greenwood, Ltd., 26-28 Rushworth Street, S.E. 1.

LABORATORY Hand; must be thoroughly experienced in manufacture of Extracts, Tinctures, etc., in large quantities; good prospects for right man. Reply, in confidence, stating experience, when disengaged, and wages required, The Veno Drug Co., Ltd., Laboratories, Manchester.

LADIES or gentlemen accustomed to clerical work (Drugs, Patent Medicines, etc.), required for September and October to assist on stock books. Apply Lewis & Burrows, 146 Holborn Bars, E.C.

MAN wanted for Laboratory work, with experience in making preparations for Doctors' trade preferred. Apply, stating age, experience, and wages required, 14/23H, Office of this Paper.

PACKER required; must have had experience in packing Chemicals for home and export trade. Apply Hopkin & Williams, Ltd., 16 Cross Street, Hatton Garden, E.C. 1.

REPRESENTATIVE for Wales (except Glamorgan and Monmouth), Hereford, Shropshire, and Cheshire; must have old-established connection with Chemists and Medical men of these areas and be resident, or willing to reside, in the territory; state experience, salary required, etc., in first letter. Apply 4/48B, Office of this Paper.

REPRESENTATIVES wanted, for Eastern Counties and Midlands, by old-established Druggists' Sundries house; commission only; good men calling on Chemists with one or two other lines can add substantially to their income by this Agency; a good connection on both above grounds will be handed over. Apply, giving full particulars and stating other lines carried, to 35/31S, Office of this Paper.

RESIDENT REPRESENTATIVES WANTED.—An important group of companies desire to appoint Resident Representatives throughout the United Kingdom and Ireland to extend the sales of their high-class Toilet Goods, Tonic Foods, Photographic Papers and Cards, etc.; only Salesmen with established connections amongst Chemists in their respective areas and desirous of securing permanent, profitable posts, on sound commission basis should write in strict confidence, giving fullest particulars as to experience and ground covered, to Box. No. 848, c/o Street and Co., Ltd., 8 Serle Street, Lincoln's Inn Fields, London.

SALESMEN required, for Scotland and Midlands, to increase present connections in Packed Goods and Sundries; part salary and commission; men with good connections make £10 a week; no objection to one or two non-competing lines; an interest can be acquired in the business if desired, but is not essential; give full details of experience, ground covered, etc. Apply 145/35, Office of this Paper.

TRAVELLERS required, Midlands, Eastern and Southern Counties, London, for Cocoanut Oil Shampoo, with connection with both or either Wholesale and Retail. Apply A. D. H., 32 Empress Avenue, Woodford Green, Essex.

WANTED, by provincial house, capable Invoice Clerk, acquainted with the Drug and Patent Medicine trade. Apply, stating age and salary required, to "Alpha" (21/10L), Office of this Paper.

WANTED, Traveller, with first-class London connection, Chemist, on commission basis, 10 per cent., for the sale of Lip Salves; compact powder boxes in enamel, gilt metal, and aluminium; all French make. Apply by letter to S. Renaud, 90 Victoria Street, S.W. 1.

YOUNG lady, Stenographer and Typist, having experience in Wholesale, or conversant with Pharmaceutical terms, required for office work generally. Apply, in own handwriting, by letter only, to "Chemist," c/o Biggs, Chemical Works, Church Street, Deptford, S.E. 8.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

FLORENCE, ITALY.—Smart qualified Junior of good appearance and address, about 25 years of age and unmarried, chiefly for front Counter; previous Continental experience not essential; state full particulars and enclose photo, to be returned. H. Roberts & Co., Chemists, Florence.

PERSIA.—Qualified Assistant required to act as Dispenser-Storekeeper to important Company in South Persia; age 24-30; unmarried; three years' engagement; R.A.M.C. N.C.O. preferred; passage paid out and home; free quarters. Apply, with full particulars of experience, stating salary required, to F. W. G. Allen & Hanburys.

SHANGHAI.—Qualified Assistant wanted; unmarried; age 21-35; must be of temperate habits; second-class passage out and home; four years' agreement. Apply "E. H." (9/7E), Office of this Paper.

SOUTH AFRICA.—Young, qualified Assistants open to accept situations in South Africa, should apply to Lennon, Limited, 12-14 Lafone Street, Tower Bridge, London, S.E. 1. South Africa is prosperous and advancing steadily; the climate is particularly fine and healthy; cost of living moderate.

SITUATIONS WANTED.

[HOME.]

RETAIL.

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

NO WAITING!

A Birmingham Assistant, writing on August 23rd, says: "I feel I must let you know that less than two hours after my advertisement appeared in "Situations Wanted" column of your Supplement a gentleman called on me and made me an offer. This is more than I had ever hoped for, and I assure you that next time I want a situation I shall employ your excellent advertising medium."

A.A.—PHARMACIST (25), College Silver Medallist in Pharmacy and Dispensing, requires permanency where ability and energy are recognised; highest references; London or Eastern Counties preferred, but not essential. Mylroi, 5 Wellington Street, Louth, Lincs.

A PHARMACIST, disengaged the beginning of September, Manager or Locum. Duckett, 4 St. Andrew's Square, Surbiton.

A PHARMACIST, 32, reliable and quick Dispenser, with knowledge of Photography, seeks position, temporary or permanent, in good-class Pharmacy. Green, 4 South Park Parade, Ilford.

A PHARMACIST, disengaged; 24; tall; good Dispensing and Retail experience; excellent references. "R. W. P.," 52 Hemberton Road, Stockwell, S.W. 9.

A QUALIFIED Chemist, disengaged; Manager or Locum; thoroughly competent; fully experienced; up-to-date Photography; any locality; brisk business preferred. Apply 146/28, Office of this Paper.

ALL-ROUND man, experienced Assistant and Manager, town and country, well educated, desires berth; Locum or permanency; unqualified; 33. Apply 145/3, Office of this Paper.

AN experienced Assistant requires good berth; unqualified; Dispensing, Photographic, Optics; could manage and control staff; 25 years' experience; reliable and punctual; good references; married. F. G. Gorell, 57 Western Road, Brighton.

AS Locum or permanent; reliable; qualified; 16 years' London, Continent; fluent French; Photographics. Barrell, 78 Rockingham Street, S.E.

AS Locum; disengaged September 9th; excellent experience and references; reasonable terms. "Locum," 26 Joy Street, Barnstaple, Devon.

AS Manager; good West-End experience; married; age 28; excellent references; South Coast preferred; disengaged. Evans, Cresswell, Langharne, Carmarthenshire.

AS qualified Manager or Assistant; permanency preferred; 20 years' experience; disengaged at present. Davies, Ty Cwrdd, Llwynhendy, Llanelly.

AS Senior or Manager; 25 years' all-round experience; 38; single; brisk cash trade preferred; organising ability; excellent references. Apply 143/39, Office of this Paper.

AS qualified Manager or Locum; disengaged; good all-round experience; town or country. J. Fraser, 13 Jackson Road, Holloway, N.

ASSISTANT; 22; unqualified; good experience in high-class Dispensing and Counter, also good references; disengaged. Apply 143/31, Office of this Paper.

ASSISTANT.—Chemist's daughter desires change; qualified; eight years' high-class Dispensing and Counter experience. Moss, c/o Wain, Chemist, Ripley, Derby.

ASSISTANT; unqualified; good all-round experience; Leicester or district preferred; disengaged immediately. "W. A.," 49 Walton Street, Leicester.

ASSISTANT; unqualified; ex-Service; disengaged; nine years' pre-war experience. Please give full particulars to "J.," 55 Burnley Road, Ainsdale, Southport.

ASSISTANT, unqualified, 25, married, desires permanency; reliable Dispenser; good Salesman; disengaged. Apply Jackson, 79 Storer Road, Loughborough, Leicestershire.

ASSISTANT; unqualified; experienced in Dispensing, Prescribing, and Counter work; thoroughly competent; Locum or permanency; free about 13th September; able to take charge. "M. W.," 3 Clitheroe Road, Clapham, S.W. 9.

ASSISTANT, qualified, seeks position near City or N. London; good all-round experience; excellent testimonials. Apply 142/17, Office of this Paper.

ASSISTANT; unqualified; 25; Burnley district preferred; good knowledge of Photography; excellent references. Pharmacy, 15 Church Street, Colne.

ASSISTANT (lady), unqualified; had management of Drug Stores 5 years; Birmingham preferred. Haynes, Heather Road, Small Heath, Birmingham.

ASSISTANT, unqualified, 24, tall, married, highest references, good all-round experience, desires permanency. State full particulars, Corrigan, 96 Chapel Street, Luton.

ASSISTANT, unqualified; ex-Service man; 12 years' pre-War experience; London suburbs preferred. Bevan, 107 Tring Road, Aylesbury.

ASSISTANT, unqualified, 30, requires post; good General experience Counter, Stock, and Dispensing. Searle, 3 De Burgh Street, Cardiff.

ASSISTANT or Manager (33); unqualified; abstainer; reliable; good all-round Dispenser, Prescriber, Photography. Apply 144/39, Office of this Paper.

ASSISTANT, unqualified (26) desires situation; 8 years' experience in Dispensing, Photo, and Counter; capable of taking charge; disengaged. Apply 145/14, Office of this Paper.

ASSISTANT, Senior, unqualified (38); first-class West-End experience; highest references; disengaged shortly. Apply 146/15, Office of this Paper.

ASSISTANT, unqualified, 25, for Dispensing; over ten years' experience with two Doctors, requires permanent post. Apply 146/13, Office of this Paper.

ASSISTANT (25); first-class Dispensing Business experience; please state hours and number of staff kept; Midlands preferred, but not essential. 146/30, Office of this Paper.

BIRMINGHAM (26); 7 years' pre-War experience; until October. "Minor Student," 31 Riland Road, Sutton Coldfield.

CAPABLE woman, highest reference, desires re-engagement; usual routine; Stock, assist Counter. Tasker, 14 Vineyard Terrace, Long Lane, Finchley.

CAPABLE and conscientious qualified gentleman, age 44, seeks responsible position; permanency; best experience; best references; South-West Counties preferred. Chemist (7/14D), Office of this Paper.

CLERICAL.—Evening work of any kind; writing up accounts and posting up books; terms moderate. Write "F. G." (124/34), Office of this Paper.

CHEMIST-OPTICIAN, age 28, both qualifications, Photography, varied experience, own instruments, wishes to correspond with progressive firm requiring competent Branch Manager; interview might be arranged. Apply 140/17, Office of this Paper.

CONSCIENTIOUS, trustworthy, and well-recommended Pharmacist seeks permanency; experienced in middle- and high-class Dispensing and Counter Retail; 26; single; abstainer; disengaged. Hudson, c/o Brown, Pharmacist, Stockton Heath.

DISENGAGED; qualified; single; 32; Locum or permanent; good references; any capacity; Midlands or North preferred. C., 10 Burnley Road, Stockwell, S.W. 9.

DISPENSER, Bookkeeper, or Secretary, disengaged, 15 years' varied experience, including Retail, seeks situation; town or country; married; Hall qualification; good references; not afraid of work; kindly state salary, etc. Apply "Statim" (136/24), Office of this Paper.

DISPENSER, experienced, seeks situation with Doctor or Chemist. Apply "Dispenser," 25 Redburn Street, Chelsea, S.W. 3.

EXPERIENCED Locum or Partner; 43; disengaged; five years last berth. "Chemicus," 3 Godfrey Road, Newport, Mon.

GENTLEMAN, qualified, with prolonged experience in highest class Retail and Dispensing business, is open to offers; exceptionally good relations with the medical professiou in West End. Address 144/31, Office of this Paper.

IMMEDIATELY.—Energetic, competent, experienced, reliable man wants berth, part-time entertained, at reasonable terms. "Rhei," 239 Camberwell New Road, S.E. 5.

IMPROVER, with London Chemist; young lady, tall; two years' sound training. "Dispenser," 36 Charlwood Street, S.W. 1.

IMPROVER, just finished apprenticeship; age 18; Manchester district preferred, but not essential. A. Christopher, Victoria Pharmacy, Greenfield, Oldham.

JUNIOR, good at Dispensing and French, just completed West-End apprenticeship, London Matric., 6 feet, smart, keen, and willing, desires Assistantship in good London business, with time to attend some evening classes. H. N. L., 46 Compton Road, N. 21.

JUNIOR, unqualified, lady, 20; Bristol or Birmingham districts; 3 years' apprenticeship high-class Retail Dispensing and Photographic business and nine months' subsequent experience; in- or out-doors; excellent references. Board, 13 Duke Street, King Square, Bristol.

LADY Dispenser (Hall) requires post with Chemist preparatory to taking Minor; knowledge of French; London preferred, but not essential; at liberty now. Holloweil, 12 St. Michael's Avenue, Northampton.

LADY Dispenser (Hall) desires post with Doctor or with Chemist to learn Light Retail; please state terms. "W.," Holly Bush Cottage, Aberfan, Glam.

LADY Dispenser (Hall) requires Locum or permanent post; Hospital experience; excellent testimonials; disengaged. Leeder, Draycot Road, Wanstead, E. 11.

LADY (Hall) requires post with Dispensing Chemist; good Hospital experience; London. Jones, 17 Ruthin Road, S.E. 3.

LIVERPOOL.—Pharmacist (35), disengaged; excellent references; Locum or permanency. Parker, 22 Kensington, Liverpool.

LOCUM; unqualified; 30; September 1-September 21; Notts or Derbyshire, but not essential; experienced all branches. "W. E. F.," 108 Mansfield Road, Nottingham.

LOCUM; qualified; 43; energetic; excellent references; abstainer; disengaged September and October; terms moderate; British, Colonial, and Continental experience. Apply 143/4, Office of this Paper.

LOCUM or permanent; qualified; 24; disengaged; excellent experience; good education; single; energetic and reliable; ex-Sergeant Dispenser; splendid references; North preferred, but not essential. Exton, Stainforth, Settle, Yorkshire.

LOCUM; 46; disengaged; take complete charge; excellent references; terms moderate; good Counterman and Dispenser. "Pharmacist," c/o Mr. Lawton, Chemist, West Town, Dewsbury.

LOCUM or permanency; qualified; 43; disengaged; excellent Retail and Dispensing experience; references. "Chemist," 2 Bovill Street, Radford, Nottingham.

LOCUM; qualified; middle-aged; experienced; disengaged September 1st; references. G., Cavendish House, West Cliff, Herne Bay.

LOCUM, disengaged September 20th; qualified; 53; country; energetic; first-class experience and references; Photography, Optics. Dewey, Mr. Cheney's, Chemist, Leominster.

LOCUM, disengaged September 7th; elderly; very active; good salesman; thoroughly experienced. Apply 5/27C, Office of this Paper.

LOCUM-TENENS, middle-aged, all-round experience, disengaged September 1. "Locum-Tenens," 232 Corporation Road, Newport, Mon.

M.P.S. desires situation with a view to succession with an elderly Pharmacist. "Rhei," 94 Westgate, Rotherham.

M.P.S., energetic Salesman, Retail, and Dispensing experience, desires post. "Chemicus," 1 New Road East, Portsmouth, Hants.

M.P.S., F.S.M.C., young, energetic, requires position in London; would build up Optical connection. "Kismet," 167 High Street, Southend.

M.P.S., 27, recently qualified, desires situation; London district preferred, but not essential; good references; conscientious worker. Allison, 93 High Street, Lincoln.

M.P.S. (LADY, 26) desires permanent engagement, middle September; London preferred. 143/10, Office of this Paper.

M.P.S. (30), experienced, married, desires permanency; Prescriber; well recommended; disengaged September 1st; salary £5 5s. per week. 144/37, Office of this Paper.

MANAGER or Assistant; 36; qualified (1911); abstainer; disengaged; 18 years' all-round experience; married; reliable. Spes., 98 Greyhound Lane, Streatham, S.W. 16.

MANAGER desires change; age 35; height 5 ft. 9 in.; qualified 1909; Photographic, Optical, and Dispensing experience; Midlands preferred. Mellor, 31 Lorne Street, Burslem, Staffs.

MANAGER or Senior; 38; qualified; 23 years' first-class experience as Assistant and Manager; good organiser; fluent French; town or country; disengaged. Scott, 57 Cartwright Gardens, W.C.

MANAGER or Locum, qualified (32); married; well recommended; London preferred; disengaged. 144/32, Office of this Paper.

MANAGER or Locum, qualified, married; London or country; wide experience; free September. Williams, c/o Gaze & Co., Higham Park, E. 4.

MANAGER, qualified, experienced, trustworthy; abstainer; quick worker; good address; 49; well recommended by last employer (6 years' management, trade quintupled) and former ones; reasonable salary. Apply 146/26, Office of this Paper.

MANAGER; permanency; Locum; qualified; middle-aged; exceptionally good experience best London, provincial businesses; disengaged early September; satisfactory references. "Idem" (146/36), Office of this Paper.

MANAGING Assistant (40); unqualified; all-round experience; disengaged September 4th; state salary. "Energy," 1 Belle Vue, Pinner, Middlesex.

MIDLANDS.—Qualified (23) desires temporary or permanent situation in good-class business; excellent references. Particulars, please, to Hardwick, 71 Dorothy Road, North Evington, Leicester.

PART-TIME (any hours), Dispensing or Counter; qualified; young; experienced; disengaged. "W. G.," 26 Coram Street, W.C. 1.

PART-TIME evening berth required by very active man of middle age; London district; Dispensing or Counter work. Apply 143/37, Office of this Paper.

PARRIS & GREENING, Hove, have every confidence in recommending their late Apprentice, recently qualified, to anyone in want of a first-class Assistant; Brighton or surrounding districts preferred. Apply Miss Jacks, 18 Lawrence Road, Hove.

PAUSE here for Branch Manager; reliable; successful; qualified; age 42; married; permanency or Locum. Johnson, 29 Cleveland Street, Wolverhampton.

PHARMACIST, 24, desires position; town South of England. Apply "Scotchman" (123/29, Office of this Paper.

PHARMACIST, disengaged August 30; experienced; Locum or permanent; London or country. Peacock, 48 Cumberland Street, S.W. 1.

PHARMACIST, aged 39, experienced, Prescriber, Photography, Optics, desires permanent Managership, view succession or partnership preferred; disengaged end of September. "M.P.S." (144/35), Office of this Paper.

PHARMACIST-OPTICIAN (qualified in both); accurate Refractionist and Dispenser; age 28; good address; would open and run Optical Department if desired. "Chemiopt," 10 Stanley Gardens, Bayswater, W. 11.

QUALIFIED; Hospital Dispensing preferred; permanency desired; Locum or part; disengaged. Henderson, 25 Miranda Road, Upper Holloway, N. 19.

QUALIFIED lady; good experience Dispensing and Counter, London, Blackheath, or Woolwich districts; disengaged. M., "Mayfield," Church Road, Bexley Heath.

QUALIFIED, lady, "Square" trained, requires post; Counter work, dispensing, or both; free September; good references. Moss, "Mossbank," Coedpoeth, Wrexham.

QUALIFIED, 24, tall, desires post, temporary or permanent, Manager or Assistant; good experience; free September 13th; North or Midlands preferred. Terms to W. Lister, Alexander Street, Claremount, Halifax.

QUALIFIED, thoroughly reliable, and capable young Pharmacist requires post as Manager or Senior Assistant; exceptional references as to character and abilities. Full particulars in first letter to Fox, 22 Alexandra Road, Balby, Doncaster.

QUALIFIED desires any position of trust; abstainer; good references; London. Chemist, 5 Wellington Road, Packham, S.E. 15.

QUALIFIED, lady, Minor, West-End and General Retail experience, desires post in London. Miss Winser, 18 Drakefield Road, S.W. 17.

QUALIFIED recently (24) desires permanency; London or suburbs; free September 6th; interview arranged. Wicks, c/o Williams, Chemist, Hampstead.

QUALIFIED; Manager or Locum; in good neighbourhood; disengaged September 7th. Smith, c/o Andrews, 34 Leinster Terrace, Bayswater.

STUDENT, passed Part I., 24, tall, desires part-time in Dispensing business; London. 146/19, Office of this Paper.

THOROUGHLY competent, reliable Dispenser; Counter, Prescriber, Photography; 20 years' all-round experience; satisfaction guaranteed. "Chemicus," 239 Camberwell New Road, S.E. 5.

YOUNG, energetic, qualified Chemist requires progressive berth; will go anywhere. James, c/o 26 Severn Terrace, Worcester.

YOUNG Man (20) as Handy Man in Hospital or other Dispensing or Chemist house; slight experience; good references; £2 per week lowest; willing, hard worker. K. 53 Lausanne Road, N. 8.

£7 PER week and commission.—Energetic, competent, qualified Manager; free September 8th; West-End and provincial experience; good business builder, with highest references. "Immediate," 23 St. John's, Worcester.

WHOLESALE.

2s. for 18 words or less: 6d. for every additional 10 words or less, prepaid.

A TRAVELLER seeks position with good firm desiring representation in London by young, energetic man. 145/13, Office of this Paper.

ADVERTISER requires position as Manager of Toilet Preparations Department; at present holding similar position with well-known Manufacturing Chemists. Apply 143/16, Office of this Paper.

ASSISTANT, disengaged; energetic; Wholesale and Retail experience, leading firm. "Lysol," Belle-Royde, Stoneyford Road, Sutton-in-Ashfield, Nottinghamshire.

CAPABLE, energetic Salesman, excellent business experience home and Continent, seeks position as Assistant or Traveller; languages. Apply P.C.B. 11/24, Office of this Paper.

CHEMIST'S Assistant, thoroughly experienced, seeks situation in the Wholesale and Export trade; excellent references. "F. W. B.," c/o Hon. Secretary, 55 Bryanston Street, W. 1.

CAPABLE young man, aged 20, desires one situation, Assistant Chemist; five years' experience in industrial Laboratory and French Pharmacy; knowledge of Photography and Perfume. Apply P.C.B. 10/26, Office of this Paper.

EXPERIENCED man (Ph.C.) desires change; London only; Works Control; Manufacturing, Buying, Organisation, etc. Replies (in confidence), "Manager" (146/5), Office of this Paper.

LABORATORY Assistant, male, age 21, desires position in a London house; thoroughly experienced in the manufacture of B.P. preparations, Ointments, Galenicals, etc., also some experience in Mixtures. P.C.B. 11/37, Office of this Paper.

MAN, 14 years' experience Wholesale, all departments, and Toilet, requires situation; energetic, willing. P.C.B. 11/33, Office of this Paper.

PERFUMERY and Toilet Manufacture.—Qualified, advertiser, age 44, desires permanent post; industrious and well recommended; disengaged. "Perfumer" (7/140), Office of this Paper.

PIONEER and Sales Promoter, open to work sound proposition; excellent record and references. Reply 146/40, Office of this Paper.

REPRESENTATIVE desires change; calling on Chemists for first-class house; Midlands, Eastern and Western Counties; would like Southern ground. 145/5, Office of this Paper.

SALESMAN, with first-class connection Chemists, Eastern Counties, desires to represent good house; excellent references as to ability and personal character. Reply 146/400, Office of this Paper.

SITUATION in Chemical Works wanted for youth, just passed London Matric., with distinction in chemistry. Smith, 21 Eden Street, Kingston, Surrey.

SQUARE-TRAINED M.P.S., single, 24½, Chemist's son, Public School education, West-End experience, desires post, Retail or Wholesale. Particulars to A. H. C., 29 Westcombe Hill, Blackheath.

TRAVELLER, sound connection Chemists and Stores, Midlands, open to represent first-class Drug, Sundry house, or well-advertised Proprietaries; 10 years' experience; please state salary and commission given. Apply "Activity" (146/34), Office of this Paper.

WELL-KNOWN Drug Traveller, South Coast and West of England, seeks change; sound personal connnection; commanding big business; only first-class house entertained. Write "Energy" (147/14), Office of this Paper.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

QUALIFIED, 35, single, abstainer, good references, desires good responsible position in Egypt. Apply 143/38, Office of this Paper.

MISCELLANEOUS.

10s. for 60 words; 1s. for every additional 10 words or less.

MCADAM & TUCKNISS, Stock and Share Brokers, Bank Chambers, Blackheath, S.E. 3. Established 1898. Telephone: 81 Lee Green.—Shares for Sale (free of commission, subject): 200 Crosse & Blackwell £1 8% Pfs., 20s. 3d.; 200 Eucryl £1 Participating Pf., offer wanted; 300 Idris "A" Ord. 11s., 300 "A" Pf. 11s. 3d.; 385 H. Lamplough, 2s. 3d.; 200 Lever 7% Pf., 19s. 9d.; 200 Peek Frean 5% Pf., 15s.—Shares wanted (subject): 300 W. B. Fordham, 12s. 4½d.; Allenburys; Wright Layman.—Bankers, London County and Westminster.

FOR Disposal, 5 h.p. Otto Gas Engine, complete, with Gas Bag, Tank, and Shafting; perfect running order; Ryland's Rota Filter, power, 6 heads; Soda-Water Machine; Syphon Cleaning Machine; Baker's Patent Filter; Ryland's Gasometer; Corking Machine; Bottle Rinser; 3 Syphon Fillers, one with Sprup Pump; offers are requested. Clegg & Son, Chemists, Wantage.

SECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

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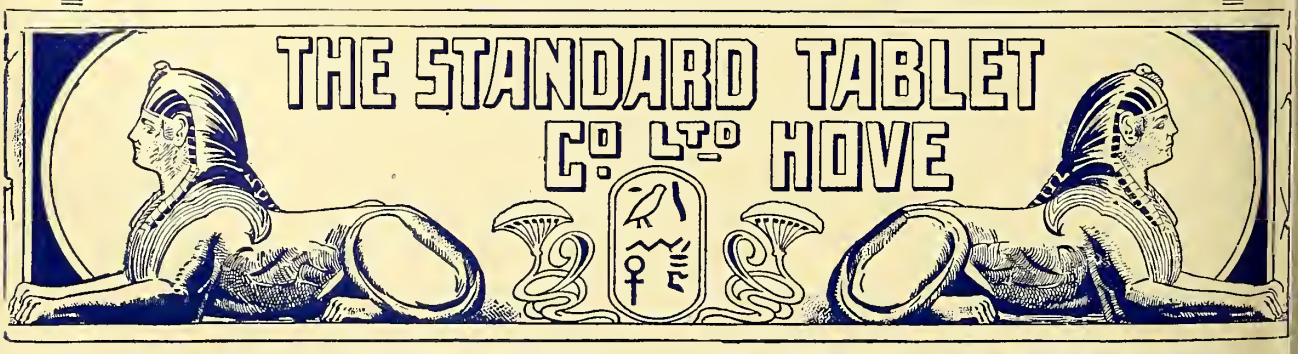

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